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ABSTRACT

This document consists of a unique college catalog and an introductory paper explaining its rationale. The college catalog at Illinois Valley Community College (IVCC) is designed to assist potential students of all ages in career decision making as well as to provide a guide to IVCC's degree and certificate programs. It is written at a level high school students, parents, and others can read and understand, placing more emphasis on information that would be needed by students prior to enrollment than on materials needed after enrollment has taken place. The guide is coded to correspond to two nationally respected interest inventories: the Holland Self-Directed Search and the Strong-Campbell Vocational Interest Inventory. The personality codes in Holland's classification (i.e., realistic, investigative, social, conventional, enterprising, and artistic) have been matched up with six curriculum choices. Similarly, completion of career interest inventories provide for an immediate match-up with the college catalog's "Career Planning Information Section." For each curriculum offered at IVCC, the catalog provides career information on nature of the work, employment outlook, training and other qualifications needed, career leads, hiring institutions, and suggested high school subjects. Counselors have responded positively to the catalog. The "Catalog and Career Decision Guide" for 1987-88/1988-89 is provided. (AYC)

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ED286541

A 'STUDENT-BASED' CATALOG
AND CAREER DECISION GUIDE

By Hans A. Andrews, Dean of Instruction

Illinois Valley Community College

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JC 870 399

BEST COPY AVAILABLE

The college catalog at Illinois Valley Community College is designed to assist potential students of all ages in career decision making as well as to provide a guide to college degree and certificate programs of study. It is written at a level high school students, parents, and others can read and understand.

Slocum attacked community college catalogs on their readability by pointing out that "community college catalog are written at the level of scholarly journals."[1]

Whitmore and Andrews made a major breakthrough with a community-based community college catalog in 1975 with a format that introduced a readability level much more in line with the general public. They produced over 80,000 catalogs that were written on newspaper stock (T.V. guide size) and distributed as inserts in area newspapers in the Kellogg Community College service area in and around Battle Creek, Michigan.[2]

The planners of the Illinois Valley Community College catalog placed more emphasis on material that would be needed by students 'prior' to enrollment rather than on materials needed after enrollment has taken place. In this way the college catalog and career guide format offers students an opportunity to use the book as a guide in the process of decision-making.

All curriculum guides are coded to correspond to two nationally respected interest inventories: Holland Self-Directed Search and Strong-Campbell Vocational Interest Inventory. In addition, associate degree and certificate graduates have added valuable insights to the college through written testimonials (and pictures) throughout the catalog.

The catalog planners took into consideration that counselors and teachers in area high schools have limited budgets as do the social agency personnel who direct many of their clientele to the local community college for education, skill, and job upgrading.

Career counseling and decision making for many persons in the college's service area leads to the college as the only higher education provider in a 50-mile radius.

Personality/Curriculum Codes

The personality codes in Holland's classification system that have been matched up with six curriculum choices (environmental classifications) under Holland's system are as follows:[3]

(1) R - Realistic
(2) I - Investigative
(3) S - Social
(4) C - Conventional
(5) E - Enterprising
(6) A - Artistic

A potential student with the highest score on either of the above two mentioned interest inventories of "S - Social" would have the following degree and certificate options at Illinois Valley Community College:

	Certificate Programs	Associate in Applied Science A.A.S.	Transfer Degree A.A./A.S.
S - Social	Dental Assisting Nursing Assistant	Child Care Nursing (R.N.)	Elementary Education Foreign Language Teacher History Major Home Economics Nursing (4-Year) Physical Education Physical Therapy Political Science Recreation Sociology Special Education Speech Therapy

Completion of career interest inventories provide for an immediate match-up with the college catalog which has a "Career Planning Information Section" inside the back cover.[4]

(See Next Page)

High school career-search classes often use the college's catalog with their sophomore and junior students as they teach them about career options and how to select them to fit individual needs and abilities. The college and social agency counselors working with adult re-entry, dislocated workers and undecided students also tie the interest testing and catalog planning information together in initial career decision making.

The catalog is produced camera ready in-house at less than 45 cents a copy and can, therefore, be distributed by the boxfulls to area schools and social agencies.

Readability and Career Information

Each curriculum page has been designed with "readability" in mind. All curriculum are supported with career information defining: (1) nature of the work; (2) employment outlook; (3) training and other qualifications needed; (4) career leads, and in some cases (5) hiring institutions.

In addition, each curriculum spells out "suggested high school subjects". The pressure on high school students to select the proper courses while in high school is enhanced with these "suggested subject" outlines. Sample outlines are:

Criminal Justice (Transfer)

4 years English (including Speech)
3 years Social Science (History/Government)
3 years Mathematics (including Computer Usage)
3 years Science (emphasis on Laboratory Science)
2 years Foreign Language, Music, or Art

Automotive (Applied Degree)

3 years English
2 years Mathematics
1 year Automotive

Each of the Associate in Applied Science (A.A.S.) degree programs and the certificate offerings have specific high school requirements that differ from program to program. The transfer programs are much more alike with the exception of those requiring more science and mathematics.

Survey of Users

The college has made it a point to survey its heaviest users of the Catalog and Career Decision Guide every three or four years. The last survey conducted in 1984 is summarized in Table I:

TABLE I

Counselor Responses to 1985-1987 Catalog of Illinois Valley Community College

N = 31

	A	B	C	D
Occupational information by curriculum--How Useful?	22 Very Useful	9 Moderately Useful	0 Unnecessary	--
Coded Curriculums to interest inventory codes--How Useful?	3 Not Useful	4 Very Useful	22 Somewhat Useful	2 Useful in the Future
Most curriculums are now on one page (not 2 or 3)--Is this:	18 An Improvement	5 Not Necessary	7 Much Better Readability	--
How do you compare IVCC's catalog to other college catalogs as a counseling tool?	0 Below Average	6 As Good	17 Better Than Most	5 The Best
Space for transfer programs has been added--Is this proving to be:	14 Useful	2 No Significant Difference	13 Significant Improvement	--
A page (11) is devoted to helping you explain "credit hour" to a student. How useful is it?	0 Not Useful	14 Moderately Useful	16 Very Useful	

Unsolicited comments as "keep up the good work," "concise information, easy to use," "I think its great," "excellent job," and "I love it -- the kids read it and can understand it" provides support to continue in the direction the catalog has been moving. Course outlines were added to all transfer programs in the 1987-1989 edition based upon the recommendation of high school counselors.

Alumni Also Speak

The latest catalog added a very dynamic dimension in terms of alumni testimonials. Each division of the college sent out requests for student responses to their degree completion work at I.V.C.C. The catalog planners felt this was in line with one of the American Association of Community and Junior College (AACJC) goals of promoting Associate Degree completion.

The results received from this testimonial search were very gratifying. Replies were received from an Illinois Supreme Court justice, a television broadcast meteorologist, a university professor, dean of a community college, engineers, physicians, computer aided design technicians, child care pre-school workers, and many others.

Examples of some of the statements received are outlined below:

> "Almost all of the promotions and unique opportunities that became available to me were directly related to the fact that I had CAD training at IVCC."

> "The instructors are true professionals in their field and are more than willing to help in any way. Equipment at IVCC is state-of-the-art, the same equipment found in industry today."

> "The automotive equipment at the college is state of the art. I enjoyed the program because of the instructors."

> "IVCC's labs are better equipped than that of the four-year university I transferred to."

> "All of the semester hours of credit I earned at IVCC transferred to Northern Illinois University and applied directly to my Bachelor of Science in Meteorology."

These testimonials from graduates tell the college's story clearer and with more intensity than any other form of public information the college puts forth.

Summary

The 1987-1989 College Catalog and Career Decision Guide can truly be considered a student-based document. It was developed to provide information for potential students needing assistance in the career decision process. In addition, it provides testimonial support for the college and its programs from persons who graduated and openly spoke about the college's strengths and commitments to individual students.

College catalogs are not known to be dynamic publications. They are usually designed to provide basic enrollment and program information. Illinois Valley Community College has not been willing to settle for such a traditional catalog and has turned it into a valuable tool for career decision help for a variety of counselors working with the needs of high school students, adults in re-entry status, dislocated workers, and social agency clientele. Positive counselor responses to this catalog and career decision guide concept has only encouraged the college to continue building upon these innovative and successful concepts!

REFERENCES

[1] Slocum, D. (1979-80). "Jargon and Double Talk in College Catalogs." Community and Junior College Journal. 50(1), 22-24.

[2] Whitmore, R. and Andrews, H. A. (1975). "The Community-Based College Catalog." Community and Junior College Journal. 45(5), 14-16.

[3] Holland, J. L. (1985). Making Vocational Choices. Englewood Cliffs, N.J.: Prentice Hall, Inc.

[4] Andrews, H. A. (1980). "The Community College Catalog and Career Decision Making." Community College Frontiers. 9(1), 11-17.

ERIC Clearinghouse for
Junior Colleges

ILLINOIS VALLEY COMMUNITY COLLEGE

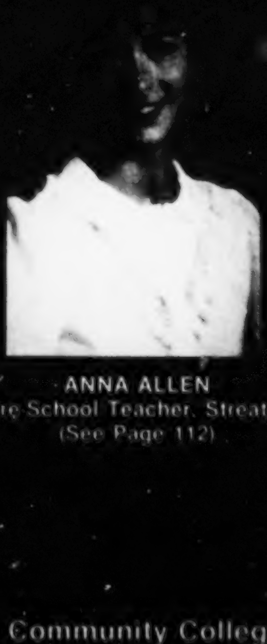
CATALOG AND CAREER DECISION GUIDE

1987 - 1988

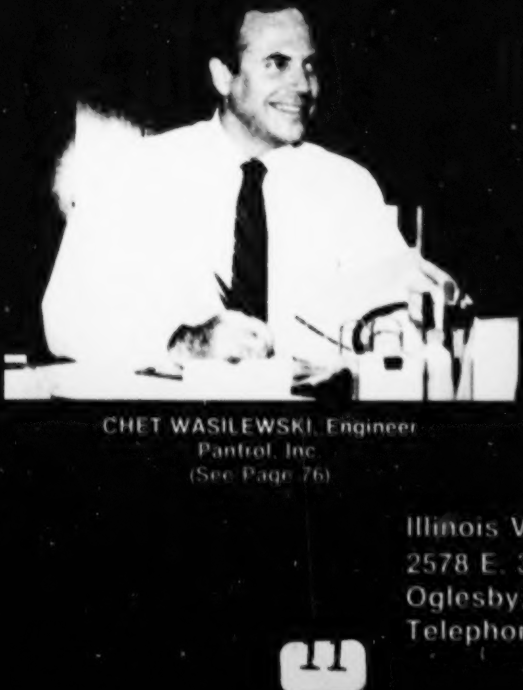
1988 - 1989

> *"A college for community people — designed to make* **successes** *of people who come to it."*

HOWARD RYAN
Justice, Illinois Supreme Court
(See Inside Front Cover)



ANNA ALLEN
Pre-School Teacher, Streator
(See Page 112)



CHET WASILEWSKI, Engineer
Pantrol, Inc.
(See Page 76)

JC 870 399

NEIL KASTOR, WQAD TV
Broadcast Meteorologist, Moline
(See Page 69)

Illinois Valley Community College
2578 E. 350th Road
Oglesby, Illinois 61348-1099
Telephone 815/224-2720

HOWARD RYAN

JUSTICE ILLINOIS SUPREME COURT

"I don't know whether or not I would have been able to complete my education if there would have been no La Salle-Peru-Oglesby Junior College," Ryan said when the referendum creating Illinois Valley Community College passed in 1966. "Community colleges give a person the opportunity to mature for two more years. You can then approach it (a four-year institution) with a more mature attitude."

BOARD OF TRUSTEES

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The North Central Association of Colleges and Secondary Schools

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The Illinois Community College Board

MEMBER OF
The American Association of Junior Colleges
The North Central Council of Junior Colleges
The National League of Nursing

I.V.C.C.
THE COMPREHENSIVE COMMUNITY COLLEGE

"Illinois Valley Community College is a comprehensive community college. We serve the traditional age college student. We also serve thousands of people in the college district who are of all ages with educational and service programs. The Neighborly Older Americans program is a testimonial of our commitment to serving the elderly; the Dislocated Workers Center serves the recently unemployed workers; the Adult Learning Center offers ABE (Adult Basic Education), GED (General Education Development) and ESL (English as a Second Language). The college offers assistance to business, industry, and local governmental agencies, and is committed to promoting the economic development of the Illinois Valley. IVCC is dedicated to serving the needs of its diverse constituencies."

AL WISGOSKI
PRESIDENT

STUDENT SUCCESS:
OUR FOUNDATION

"Quality classroom teaching continues to be our ***number one goal.*** *The testimonials of graduates recorded in this catalog tells our story better than any college instructor or administrator. Feedback from universities and employers continue to find I.V.C.C.'s preparation unsurpassed in Illinois.*

HANS ANDREWS
DEAN OF INSTRUCTION

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GRADUATES SPEAK

KENNETH OLIN, CAD Designer/Draftsman
Various Contracting Services

"The education that I received at IVCC enabled me to find a job in today's competitive job market. Because of its size, IVCC is a friendly, personal college; because of its location, students are not far from home; because of its affordability, anyone can attend college. IVCC has a fine reputation for modern technology in engineering design."

MIKE PROSINSKI, Senior Industrial Engineer
Champion Pneumatic Machinery Co.

"The IVCC curriculum is set up so that just about any aspect of a manufacturing facility will be understood from reading blueprints to quality control. Robotics and CNC machines are just breaking the surface. You won't see any machine shops without CNC machines in the next few years. It's an ideal time to start learning about automation."

DORENE ROACH, CAD Systems Manager
Conco-Tellus
Mendota, Illinois

"Almost all of the promotions and unique opportunities that became available to me at Conco-Tellus were directly related to the fact that I had CAD training at IVCC. IVCC is a very good school and an excellent opportunity for people in the area...We are lucky to have something so good so close."

MARK TONDI, Automotive Mechanic

"The time I spent at ICC obtaining my degree is the best investment I have ever made. IVCC provided me with a solid foundation of knowledge in all aspects of the automotive field, while stressing the need to continue your education. If you are willing to work hard at learning, IVCC will be a big boost to your career."

DAVE VOLPE, Volpe's Phillips 66
LaSalle, Illinois

"The training I received at IVCC was very thorough. After you have completed the course, you feel very confident about your abilities. The automotive equipment at the college is state-of-the-art. At IVCC, you get to use equipment that is never outdated. The automotive instructors were very easy to get along with. I enjoyed the program because of the instructors."

JOSEPH ELZER, "A" Electrician
Commonwealth Edison
LaSalle County Nuclear Station

"For the small investment a person can make in going to IVCC, the return will last a lifetime. The instructors are true professionals in their field and are more than willing to help in any way. Equipment at IVCC is state of the art, the same equipment found in industry today."

RICHARD LIESSE, Electronics Technician
Conco-Tellus
Mendota, Illinois

"I was very well prepared by IVCC to meet the skill requirements of my job, especially when pertaining to solid state devices and microprocessors. IVCC is a very good community college. It has excellent facilities."

ILLINOIS VALLEY COMMUNITY COLLEGE

ADMISSIONS

How to be Admitted to Illinois Valley Community College

Illinois Valley Community College has an "open door" admission policy. Any high school graduate or mature person with equivalent educational background is eligible for admission. Admission to programs are on an open admission with the exception of registered nursing and licensed practical nursing (See Nursing curriculum pages for specified program admission criteria.)

IF YOU PLAN TO ATTEND FULL-TIME: You need to file an application for admission, high school transcript (or G.E.D. test results), and all previous college transcripts. Students in high school should submit American College Test (A.C.T.) results (full-time status is equivalent to 12 semester hours or more in a semester).*

IF YOU PLAN TO ATTEND PART-TIME: It is not necessary to file any advanced application or academic records. These records may be useful, however, when working with a college counselor. (Part-time is equivalent to 11 or less semester hours in a semester.)

IF YOU HAVE NEVER COMPLETED HIGH SCHOOL: You may enroll for part-time or full-time. (People who have discontinued high school may enroll after their high school class has graduated - or may obtain a certificate of severance from the superintendent or principal in the high school district in order to begin IVCC courses earlier.)

FOREIGN STUDENT admission requests should be made directly to the Director of Admissions Office - specific requirements will be mailed.

The college accepts the responsibility of assisting students in the selection of courses and programs that will be in the student's best interest. Placement tests may be administered for full-time students to assist in proper placement in English, reading, mathematics, and science courses.

POLICY - 16 & 17 YEAR OLD STUDENTS

High School Agreement

High school students ages 16 and over carrying a "B" average will, with written consent of the high school principal, counselors, or other authorized official, be permitted to enroll at IVCC. Such students must bring this written authorization with them at the time of registration or include it with the mail-in registration form.

The high school official must specify the number of courses or semester hours and the particular courses for which the student may enroll; college credit will be awarded and in escrow as college credits until after high school graduation.

*While not required for admission, ACT test results are preferred and are used in course placements.

AN APPLICATION FOR ADMISSION IS AVAILABLE
IN BACK OF CATALOG OR AT AREA HIGH SCHOOLS
OR FROM IVCC ADMISSIONS OFFICE.

P-R-O-G-R-A-M-S O-F S-T-U-D-Y

I. **TRANSFER PROGRAMS** → consist of the first two years of a typical four-year baccalaureate degree. Students in these programs are preparing to "transfer" to a senior college or university to complete study.

IVCC awards two degrees in the Transfer Program

→ **The Associate in Arts (A.A.)**....emphasizes coursework in Communications, Humanities and Fine Arts, Social Sciences and a sampling of laboratory science and Mathematics. A course in computer literacy is included, as well as health, physical education or wellness. Some examples of "majors" (fields of study) leading to the A.A. are:

- Agriculture
- Art
- Business Administration
- Business Education
- Computer Science
- Criminal Justice
- Elementary Education
- Secondary Education
- Special Education
- English
- Foreign Languages
- Geography
- History
- Home Economics
- Literature
- Mathematics
- Music
- Physical Education
- Political Science
- Pre-Law
- Psychology
- Social Work
- Sociology
- Speech
- Theatre..............and many other possibilities

→ **The Associate in Science (A.S.)**....emphasizes Mathematics and laboratory science courses, along with a sampling of coursework in the areas of Communications, Humanities and Fine Arts, Social Science. A course in computer literacy is included, as well as health, physical education or wellness. Some examples of "majors" (fields of study) leading to the A.S. are:

- Biology
- Chemistry
- Computer Science
- Engineering
- Forestry
- Geology
- Medical Technology
- Pre-Nursing
- Pre-Dentistry
- Pre-Medicine
- Pre-Physical Therapy
- Pre-Veterinary Medicine
- Physics..............and many other possibilities

BOTH THE A.A. AND THE A.S. DEGREE REQUIRE COMPLETION OF A 64 SEMESTER HOURS OF CREDIT. OF THESE CREDITS, 44 ARE IN SEVEN CATEGORIES OF "GENERAL EDUCATION." THE REMAINING 20 CREDITS ARE ELECTIVES, WHICH ARE CHOSEN ACCORDING TO THE MAJOR AND THE COLLEGE OR UNIVERSITY TO WHICH TRANSFERRING. FOR A DESCRIPTION OF IVCC'S GENERAL EDUCATION REQUIREMENTS, SEE P. 42 OF THIS CATALOG.

BY AGREEMENT WITH PUBLICALLY OPERATED STATE UNIVERSITIES IN ILLINOIS, STUDENTS WHO GRADUATE FROM IVCC EARNING THE A.A. OR A.S. ARE AWARDED JUNIOR STANDING UPON TRANSFER TO THESE UNIVERSITIES. FOR DETAILS ON THIS "TRANSFER COMPACT AGREEMENT," SEE P. 39 OF THIS CATALOG.

(Continued on Next Page)

II. **CAREER PROGRAMS** → are designed to lead to employment after one or two years of study. Normally courses in these programs are not designed to be transferred, nor are they usually accepted by senior colleges or universities (there are some exceptions; IVCC counselors can help explain how parts of career programs can be transferred).

IVCC offers two options within the Career Program:

→ **The Associate in Applied Science (A.A.S.)**...is the degree program in the Career area. The A.A.S. can be completed in two years of full time study (or longer if attending on a part-time basis). About 75% of the coursework required for the A.A.S. is directly in the particular major or field of study, or very closely related to it. The remaining 25% of the coursework is in General Education. IVCC offers the following A.A.S. Career Programs:

- Accounting
- Agribusiness (2 options)
- Agrimechanics
- Auto Mechanics
- Computer Info System
- Child Care
- Criminal Justice
- Electronics Tech
- Fire Science
- Marketing
- Mechanical Engineering
- Mechanical Tech/Robotics
- Medical Lab (Sauk Valley College)
- Microprocessor Tech
- Mid-Management
- Nursing
- Radiologic Tech (Sauk Val)
- Secretarial Science

→ **Certificates of Completion**...are shorter term career programs than the degree program. Some Certificates consist of as little as three courses; others contain as many as 30 semester hours. Most Certificate programs take about one year to complete (as a full-time student). Certificate programs contain many of the same courses found in the longer A.A.S. degree programs. At IVCC, the following Certificate programs are offered:

- Accounting (3 options)
- Agribusiness-Production
- Agribus.-Agronomy
- Agribus.-Animal Sci.
- Agrimechanics
- Automotive Mechanics
- Clerical
- Computers Small Busn.
- Computer Numerical Cntrl.
- Computer Operation
- Computer Programming
- Criminal Justice
- Dental Assisting
- Diesel Fuel Systems
- Diesel Truck Mechanic
- Fire Science
- Heavy Equip. Mechanic
- Industrial Electrician
- Micro-Computer
- Nurse Assistant
- Word Processing
- Word Proc. Systems Mngmt.
- Retailing/Merchandising

III. **THE ASSOCIATE IN GENERAL STUDIES (A.G.S.)** is IVCC's self-structured degree. The A.G.S. consists of 64 semester hours in any combination of either transfer or career courses. The A.G.S. is not normally considered to be a transfer program. The A.G.S. could be ideal for adults who simply would like the satisfaction of earning a degree.

ILLINOIS VALLEY COMMUNITY COLLEGE

CALENDAR 1987-1988

FALL SEMESTER 1987

Wednesday, August 19	Division In-Service for Faculty
Thursday, August 20	Faculty Fall Conference Day
Friday, August 21	CLASSES BEGIN
Thursday, August 27	Late Registration Ends for Day Classes
Thursday, September 3	Late Registration Ends for Evening & Off-Campus Classes
Thursday, September 3	Last Date for Partial Refund
Monday, September 7	Labor Day (College Closed)
Thursday, Friday, October 15 and 16	Mid-Semester Break for Faculty & Students
Monday, October 19	MID-TERM
Friday, November 6	Last Date for Automatic Withdrawal/Passing
Wednesday, November 11	Veterans' Day (College Closed)
Wednesday (Noon), Thursday, Friday November 25, 26, 27	Thanksgiving Vacation (College Closed
Monday, November 30	Classes Resume
Monday, December 7	Last Date for Student Withdrawal
Thursday, Friday, Monday, Tuesday December 17, 18, 21, 22	Semester Exams
Wednesday, December 23	Final Grades Due in Records Office 12:00 Noon
Wednesday, December 23	SEMESTER ENDS
Wednesday, December 23 through January 4, 1988	Faculty Vacation
Wednesday, December 23 through January 5, 1988	Student Vacation
Thursday, Friday, December 24 and 25 and Wednesday, Thursday, Friday, December 30, December 31, and January 1, 1988	Holidays for Staff (College Closed)

SPRING SEMESTER 1988

Tuesday, January 5	In-Service for Faculty
Wednesday, January 6	CLASSES BEGIN
Tuesday, January 12	Late Registration Ends for Day Classes
Tuesday, January 19	Late Registration Ends for Evening & Off-Campus Classes
Tuesday, January 19	Last Date for Partial Refund
Friday, February 12	Lincoln's Birthday (College Closed)
Tuesday, March 1	MID-TERM
Friday, March 11	Faculty College/Industry Visits
Monday through Friday, March 14-18	Spring Vacation for Faculty & Students
Monday, March 21	Classes Resume
Thursday, March 31	Last Date for Automatic Withdrawal/Passing
Friday, April 1	Good Friday (College Closed)
Thursday, April 28	Last Date for Student Withdrawal
Thursday, Friday, Monday, Tuesday May 5, 6, 9, 10	Semester Exams
Wednesday, May 11	Final Grades Due in Records Office 12:00 Noon
Friday, May 13	SEMESTER ENDS
Friday, May 13	Commencement

PRE-SUMMER AND SUMMER SESSIONS, 1988

PRE-SUMMER SESSION

Tuesday, May 17	Last Day for Registration
Tuesday, May 17	SESSION BEGINS
Thursday, May 19	Last Day for Partial Refund
Monday, May 30	Memorial Day (College Closed)
Wednesday, June 8	SESSION ENDS
Thursday, June 9	Final Grades Due in Records Office 2:00 p.m.

FOUR-WEEK SESSION

(4 Days a Week
No Friday Classes)

Wednesday, June 8	Payment of Tuition Due
Monday, June 13	SESSION BEGINS
Tuesday, June 14	Late Registration Ends
Thursday, June 16	Last Day for Partial Refund
Monday, June 27	Last Day for Automatic Withdrawal/Passing
Wednesday, June 29	Last Day for Student Withdrawal
Monday, July 4	Independence Day (College Closed)
Tuesday, July 12	SESSION ENDS
Thursday, July 14	Final Grades Due in Records Office 4:00 p.m.

EIGHT-WEEK SESSION

(4-Days a Week
No Friday Classes)

Wednesday, June 8	Payment of Tuition Due
Monday, June 13	SESSION BEGINS
Wednesday, June 15	Late Registration Ends
Monday, June 20	Last Day for Partial Refund
Monday, July 4	Independence Day (College Closed)
Tuesday, July 19	Last Day for Automatic Withdrawal/Passing
Thursday, July 28	Last Day for Student Withdrawal
Thursday, August 4	SESSION ENDS
Monday, August 8	Final Grades Due in Records Office 1:00 p.m.

ILLINOIS VALLEY COMMUNITY COLLEGE

CALENDAR 1988-1989

FALL SEMESTER, 1988

Thursday, August 18	Division In-Service for Faculty
Friday, August 19	Faculty Fall Conference Day
Monday, August 22	CLASSES BEGIN
Friday, August 26	Late Registration Ends for Day Classes
Thursday, September 1	Late Registration Ends for Evening & Off-Campus Classes
Friday, September 2	Last Date for Partial Refund
Monday, September 5	Labor Day (College Closed)
Wednesday, October 19	MID-TERM
Thursday, Friday, October 20 and 21	Mid-Semester Break for Faculty & Students
Friday, November 4	Last Date for Automatic Withdrawal/Passing
Friday, November 11	Veterans' Day (College Closed)
Wednesday (Noon), Thursday, Friday November 23, 24, 25	Thanksgiving Vacation (College Closed
Monday, November 28	Classes Resume
Friday, December 2	Last Date for Student Withdrawal
Monday, Tuesday, Wednesday, Thursday December 19, 20, 21, 22	Semester Exams
Friday, December 23	Final Grades Due in Records Office 12:00 Noon
Friday, December 23	SEMESTER ENDS
Friday, December 23 through January 4, 1989	Faculty Vacation
Friday, December 23 through January 8, 1989	Student Vacation
Monday, Tuesday, December 26 and 27 and Friday, December 30, Monday, January 2, 1989	Holidays for Staff (College Closed)

SPRING SEMESTER, 1989

Tuesday, January 3	In-Service for Faculty
Wednesday, January 4	Faculty Spring Conference Day
Thursday, January 5	CLASSES BEGIN
Wednesday, January 11	Late Registration Ends for Day Classes
Wednesday, January 18	Late Registration Ends for Evening & Off-Campus Classes
Wednesday, January 18	Last Date for Partial Refund
Monday, February 13	Lincoln's Birthday (College Closed)
Tuesday, February 28	MID-TERM
Monday through Friday, March 13-17	Spring Vacation for Faculty & Students
Monday, March 20	Classes Resume
Friday, March 24	Good Friday (College Closed)
Friday, March 31	Last Date for Automatic Withdrawal/Passing
Thursday, April 27	Last Date for Student Withdrawal
Thursday, Friday, Monday, Tuesday May 4, 5, 8, 9	Semester Exams
Wednesday, May 10	Final Grades Due in Records Office 12:00
Friday, May 12	SEMESTER ENDS
Friday, May 12	Commencement

PRE-SUMMER AND SUMMER SESSIONS, 1989

PRE-SUMMER SESSION

Tuesday, May 16	Last Day for Registration
Tuesday, May 16	SESSION BEGINS
Thursday, May 18	Last Day for Partial Refund
Monday, May 29	Memorial Day (College Closed)
Thursday, June 8	SESSION ENDS
Friday, June 9	Final Grades Due in Records Office 2:00 p.m.

FOUR-WEEK SESSION

(4 Days a Week
No Friday Classes)

Wednesday, June 7	Payment of Tuition Due
Monday, June 12	SESSION BEGINS
Tuesday, June 13	Late Registration Ends
Thursday, June 15	Last Day for Partial Refund
Monday, June 26	Last Day for Automatic Withdrawal/Passing
Wednesday, June 28	Last Day for Student Withdrawal
Monday and Tuesday, July 3 and 4	Independence Day (College Closed)
Wednesday, July 12	SESSION ENDS
Thursday, July 13	Final Grades Due in Records Office 4:00 p.m.

EIGHT-WEEK SESSION

(4-Days a Week
No Friday Classes)

Wednesday, June 7	Payment of Tuition Due
Monday, June 12	SESSION BEGINS
Wednesday, June 14	Late Registration Ends
Monday, June 19	Last Day for Partial Refund
Monday and Tuesday, July 3 and 4	Independence Day (College Closed)
Tuesday, July 18	Last Day for Automatic Withdrawal/Passing
Thursday, July 27	Last Day for Student Withdrawal
Tuesday, August 8	SESSION ENDS
Wednesday, August 9	Final Grades Due in Records Office 1:00 p.m.

MISSION AND PURPOSES

MISSION STATEMENT - ILLINOIS VALLEY COMMUNITY COLLEGE*

Illinois Valley Community College is a comprehensive educational institution established to provide for its students and community the opportunity to learn, to develop their abilities, and to provide the opportunity to share and participate in continuing educational and cultural programs. To this end, Illinois Valley Community College offers curricula and services designed to stimulate intellectual and physical growth, and to foster social and emotional maturity and civic consciousness.

PURPOSES

Illinois Valley Community College sets forth the following purposes consistent with its mission:

A. To provide curricula to meet a variety of educational needs of its students and community.

1. Baccalaureate courses and associate degree level work in preparation for upper division degrees conferred by four-year degree-granting colleges and universities.

2. Appropriate course offerings in vocational and technical areas of study directed toward the acquisition of new skills or the furthering of proficiency in skills to meet current and emerging employment needs.

3. Appropriate course offerings for a two-year general studies degree program to meet individual needs of students when such programs are not related to career education or baccalaureate parallels program.

4. Appropriate course offerings in preparation and developmental areas of study directed toward aiding the student in realizing a successful experience in post-secondary education.

B. To provide programs and services pertinent to the success of students enrolling at the college and to community groups, organizations, and individuals.

1. Comprehensive student development services designed to assist students in discovering, establishing, and attaining their educational, vocational, and personal goals.

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*Revised 3/87 and approved by the Board of Trustees at March 18, 1987, meeting.

2. A comprehensive program for students of co-curricular activities designed to promote or encourage cultural improvements, citizenship responsibilities, and physical or social skills.

3. Community service efforts to provide support to business, industry, agriculture, and social agencies; to assist in economic development; to serve senior citizens and other identifiable community needs.

4. Cultural and recreational leadership and enrichment activities for various area communities, school districts and age groups.

IVCC student Cathy Savage is the recipient of a scholarship from the LaSalle Rotary Club. Club president Frank Zeller presents the award, while Matt Toohey, IVCC director of financial aid, looks on.

HISTORY OF THE COLLEGE

Governor Jim Thompson presents Dr. Al Wisgoski, IVCC president, with a check from the Illinois Arts Council for IVCC's cultural series. Also pictured is Bill Danley, coordinator of the series.

Illinois Valley Community College's $20 million campus, which began with the overwhelming approval of a bond referendum in 1967, was completed in 1980 following a 13-year period of growth and expansion in Oglesby, Illinois.

Phase III-B, a $1.58 million theatre/lecture hall just east of the main complex, opened its doors in October, 1980, marking the completion of the community college campus situated atop a wooded bluff south of LaSalle overlooking the beautiful Illinois River. When in theatre form, the structure accommodates more than 600 persons for plays and productions, with the ability to convert to three 200-seat lecture halls for student instruction.

In September, 1979, Phase III-A construction was completed on IVCC's 29,500 square foot automotive/agriculture facility on the interim campus. Students in both curriculums can pursue one and two-year degree programs, as well as transfer programs, surrounded by the most modern lab and instructional equipment, along with large hands-on lab areas for study on actual pieces of farm and automotive machinery.

Citizens of District 513 approved the $8.25 million referendum on October 21, 1967, slated toward the development of IVCC's campus. The district includes 21 high schools, and all or a part of eight counties in North Central Illinois. Although relatively new, IVCC shares the 58-year history of its parent institution, LaSalle-Peru- Oglesby Junior College which was formed in 1924.

In July, 1972, the college began to move much of its staff and equipment from temporary buildings in to the Phase I facilities.

The Phase I building program included a core administrative center, library (and now a federal depository), radio-TV studio, and two classroom segments with a learning-resource center in each one. The Phase II plan consisted of a gym, and two more classroom buildings completed in 1975. The interconnected classroom structures total more than 225,000 square feet of space, and form an enclosed courtyard.

Located to the south of the classroom buildings is the 28,000 square foot physical education center containing a gym, two multi-purpose education rooms, dressing areas, a training room, and a weight room. An eight-lane all weather track, tennis courts, and baseball diamond are also located on campus.

IVCC serves approximately 4,200 students each semester in a variety of programs on campus. Evening classes are offered in several high school and off-campus centers, while day and evening courses are presented at the nearby Sheridan Correctional Center. More than 4,500 persons are served each semester by IVCC's Office of Continuing Education which provides a myriad of business, industrial, and leisure-time courses.

HOW TO UNDERSTAND COLLEGE CREDIT HOURS

What are college credit hours? This is a question often asked by many people prior to enrolling in college classes or certificate and degree programs.

College credit hours are earned by students when they spend hours learning a skill (such as welding), or an academic body of knowledge (such as political science or business law) or an avocational interest (such as photography).

At IVCC credit hours are placed on each subject. The number of credit hours is determined by the number of lecture, laboratory, seminar, or field experience hours determined necessary for each course.

MANY COURSES AT IVCC RUN FOR 16 WEEKS

(Some run for 3 weeks, 4 weeks, and 8 weeks)

Example 1: In a 3-credit hour course at IVCC a student may be in class for three 50-minute periods a week for 16 weeks:

9 - 9:50 a.m.
Monday
(50 minutes)

9 - 9:50 a.m.
Wednesday
(50 minutes)

9 - 9:50 a.m.
Friday
(50 minutes)

OR

Example 2:

9:30 - 10:45 a.m.
on
Tuesday and Thursday
(75 minutes each day)

Example 3: In another 3-credit hour course, a student may be in a course for 3 hours at a time (150 minutes), once a week for 16 weeks:

7:00 p.m. to 9:30 p.m.
Monday Evenings

STUDENT SERVICES INFORMATION

STUDENT DEVELOPMENT PROGRAM

The college offers a comprehensive program designed to assist students in discovering, establishing, and attaining their educational, vocational, and personal goals. Counselors are available to all students. Through test results and interviews with counselors, students are assisted in determining their strengths and limitations, assessing their interests, and planning a systematic program of educational, social and personal development.

Orientation

A special orientation program is provided for entering freshmen and other new students to help acquaint them with the physical facilities and student services at IVCC, as well as future classmates. Academic programs and campus regulations are discussed during orientation, and college personnel are present to answer any questions which may arise. With the assistance of the counseling staff, student academic programs for the first semester are scheduled as an integral part of orientation.

Career-College Information Center

The Career-College Information Center is located in L-R-C D. Students desiring information regarding most colleges and universities located throughout the United States will find many college catalogs arranged according to state in LRC D. Many sources of information regarding over 1,000 different careers and occupations, are on file in the Career-College Information Center. All information is available to any student on a checkout basis. Many reference publications dealing with careers, college transfer information, professional school entrance requirements, listings of colleges providing programs under specific majors, vocational-technical training programs, and other items of college and career information are located in LRC-D or in the Jacobs Memorial Library, C-201. Students having questions or concerns regarding the career decision-making process should consult with a counselor. If deemed advisable, a counselor may suggest that the student take an interest or aptitude inventory for further assistance in the decision-making process.

Counseling

Counseling services, including assistance with personal, education, or career concerns, are available to all IVCC students. When the college is in session, counselors are available from 8 a.m. to 4 p.m. on weekdays and, for the convenience of evening students, from 5:30 to 8:30 p.m., Monday through Thursday.

Academic Advising

Beginning with admission to the college and continuing each semester, students consult counselors and faculty resource persons who assist them in establishing and pursuing educational and career goals and in planning course schedules for each academic term. Curriculum guides for programs offered by the college are available in LRC-D and these guides, used in combination with the current IVCC catalog, list requirements for specific programs and graduation from IVCC.

IVCC Academic Advising Policy Statement

A. The functions of academic advising at IVCC include:

1. Providing students with current information on policies, procedures, and programs of IVCC and other universities as possible.

2. Assisting students in choosing educational and career objectives commensurate with their interests and abilities.

3. Assisting students in exploring the possible short and long range consequences of their choices; and

4. Making students aware of the wide range of services and educational opportunities that may be pertinent to their educational objectives.

This process involves a set of constructive and cooperative relationships between students and advisors.

B. Academic advising is based upon a complex of policies, procedures, publications, personnel, and services that are supervised through the Office of the Dean of Student Development which is responsible for:

   1. Articulation on a course by course basis (as possible) with the universities which the majority of our students attend.
   2. Review and evaluation of the academic advising program.
   3. Development of appropriate procedures for , the academic advising program.

C. It is the responsibility of each student to know and meet graduation and other requirements and to make every reasonable effort to obtain adequate academic advising. Frequent advisor contact will help to ensure the student has current academic information and is making adequate progress toward educational goals.

Bookstore

The college Bookstore is located in Room C-205, directly adjacent to the main lobby of the college. The Bookstore stocks textbooks and classroom supplies. They also stock general books, greeting cards, emblematic merchandise, and a complete line of school and office supplies.

New and used textbooks may be purchased. The Bookstore sponsors a Buy-Back at the end of each semester, during final exams. The person selling the book back receives one-half of the list price of a new book, even if they purchased it as a used book.

Bookstore Hours:
Monday thru Friday 8:00am-4:00 pm
Monday thru Thursday 5:30pm-7:30 pm

Day Care Center

IVCC operates a Day Care Center in the Automotive Building on the East campus on days when college classes are in session. Currently enrolled students with children ages 2-5 years may utilize this service at an hourly charge per child. The Center is open from 7:45 a.m. until 4:00 p.m. No meals are provided at the Center, so parents are responsible for seeing that their children receive their normal meals. Persons with extenuating circumstances must contact the Day Care Coordinator regarding any special arrangements which must be made.

Students wishing to enroll children at the Day Care Center should contact the Center Coordinator at Building 10 when classes begin each semester. A short enrollment form must be completed, so please allow sufficient time for completion of this form. Questions regarding the Day Care Center should be directed to the Center Coordinator or by calling 815/224-2720.

Inclement Weather Policy

It is the policy of the college that classes will meet and the college will be open, regardless of the weather, on all days when the official calendar calls for classes.

The geographic size of the district makes possible the existence of varying weather conditions on any given day in different locations throughout the district. IVCC students will be expected to decide for themselves whether they should or should not attend classes during periods of inclement weather.

OTHER SERVICES FOR STUDENTS

Housing

The college has no dormitory or housing facilities. Students seeking housing closer to campus are advised to check the classified section of the local newspaper and to check with friends in the area. The office of the Dean of Student Development also collects information regarding off-campus housing. Housing agreements are to be arranged between the landlord and the student.

Events Calendar

The Events Calendar is published by the Office of Public Information Services and includes all scheduled campus events and activities. The Events Calendar is posted on all campus bulletin boards. Students should check the Events Calendar regularly to be informed of upcoming events and important dates related to the academic calendar.

Food Services

Food service is available each day that classes are in session. The college cafeteria is located on the lower level of Bldg. C and features sandwiches and snacks as well as plate lunches. Food and beverages are to be consumed in the cafeteria area and are not to be carried to other parts of the building.

Insurance

The college does not offer a group health or health/accident insurance policy for students. Each student must secure that coverage for himself, if desired.

Intercollegiate Athletics

The college recognizes the value of athletic participation and, therefore, supports intercollegiate and intramural athletic programs for men and women.

Intercollegiate sports at IVCC include baseball, basketball, volleyball, softball, cross country, football, golf, tennis, and track and field. Students wishing to participate on college intercollegiate athletic teams should contact the Director of Athletics in Room G-211.

Learning Resources

Jacobs Library is located on the main floor of Bldg. C and provides a quiet atmosphere and comprehensive collection of reference materials for IVCC students. The library also is a depository library receiving both federal and state publications for use by the residents of the 15th Congressional district and Community College District 513. Students are encouraged to become acquainted with the service offered by the library and to browse through the magazines, newspapers, periodicals, books and various standard reference volumes to become informed regarding available materials.

A library handbook is available which lists the hours of operation and complete information regarding use of the library. Any questions concerning the library, the depository, or reference materials should be directed to the library staff. The Audio Visual Center, located in Room C-317, is equipped to produce transparencies, audio and video tapes, as well as signs and posters to publicize campus events and activities. Tapes, loops, filmstrips, slides and recordings are circulated to students through the library. Questions regarding audio visual equipment and facilities should be directed to the Audio Visual Center.

Local Scholarships

A limited number of scholarships are offered to students each year. Most scholarships are offered through the high schools, therefore students should check with their counselors first.

Various scholarships are also offered directly through the college from various organizations such as the IVCC Foundation, Kiwanis Club, Ottawa Business and Professional Women's Club, LaSalle Rotary, Illinois Health Improvement Association, and many more. The college will announce availability of all scholarships through the student newspaper.

Satisfactory Academic Progress

Any student receiving financial aid must remain in good standing and must show satisfactory progress toward their certificate or degree. (Title 45. Ch. I, Part 144, Sec. 144-2-20, Fed. Regs.)
For purposes of implementing this policy, the following criteria will be used:

I. Where two or more courses are taken and the student fails/ withdraws from all, the student will be determined to have made unsatisfactory progress with the office of financial aid.

II. Failure to successfully complete more than 50% of the courses or semester hours in which the student enrolls will be determined to be unsatisfactory progress with the office of financial aid and may result in the loss of further financial aid benefits.

III. If the student's grades do not meet the standards of academic progress, the semester the student is placed on academic probation, the student will not receive financial aid the following semester.

IV. Financial aid recipients must remain in good standing and must show satisfactory progress toward their certificate or degree in order to be considered making satisfactory progress.

Academic Progress

Students receiving or applying for federal or state financial aid funds must remain in good standing and must show satisfactory progress toward their certificate or degree (Title 45. Ch. I, Part 144, Sec. 114.2-20, Fed. Regs.). For purposes of implementing this policy, the following criteria will be used:

1. Semester Requirement - Each semester a student must complete 50% of the hours he/she has enrolled for.

2. Grade Point Average Requirement- Financial aid recipients must maintain the following grade point averages, as listed under scholastic requirements in the IVCC catalog in order to be considered making satisfactory progress:

G.P.A.	.00-1.49	1.50-1.99	2.00-4.00	Classification
H.A. 9-29	Prob.	G.S.	G.S.	Freshman
H.A.30-44	Prob.	Prob.	G.S.	Sophomore
H.A.45+	Drop	Prob.	G.S.	Sophomore

Abbreviations: H.A.-Hours Attempted; Prob.-Probation; G.S.-Good Standing; G.P.A.-Grade Point Average; Drop-Excluded (Dropped).

3. Maximum Time Frame Requirement - Students may receive financial aid until they have accumulated or attempted 90 semester hours of credit from Illinois Valley Community College. This policy will consider all enrollments at Illinois Valley Community College whether or not financial aid was received.

4. Rate of Completion Requirement- Students must progress toward their educational goal at a minimum rate defined as follows:

Total Hours Attempted	Cumulative Percent Completion Required
9 - 45	50%
46 - and above	60%

Records Office

The Student Records Office, Room C-207, has the responsibility of maintaining the permanent academic records of all students who attend IVCC. Requests to repeat a course or to have an official transcript sent to another institution must be submitted to the Records Office. The forms to be completed by students for these requests are available in the Records Office.

Parking

The college provides free parking for its students. Several parking lots are designated for students.

Dr. Al Wisgoski, IVCC president, accepts a donation to the IVCC Foundation from Walter Durley Boyle and his wife, Hazel Marie. The Boyles, of rural Hennepin, are setting up a special scholarship fund at IVCC.

FINANCIAL AID

The Financial Aid Office of Illinois Valley Community College attempts to ensure that no student is denied access to the college due to lack of funds. To do this IVCC encourages all students to apply for several major sources of aid. These sources include Illinois State Scholarship, Pell Grant, College Work Study, Supplemental Grant, and Illinois Guaranteed Loan.

All aid is based strictly on the financial information of the students and their families. Applications for aid should be filed as early as possible. Students can begin to apply in January for aid the following fall. Applications are available in the Student Development Office (C-213) and from the counselors of all the area high schools. Students applying for financial aid should use the ACT Family Financial Statement or the Application for Federal and State Student Aid. Specific questions about aid can be made by contacting the Director of Financial Aid in Room C-215. The director also provides information concerning aid to those students who wish to transfer.

Students who have previously attended another college must submit a financial aid transcript from that school before they can receive financial aid. This is required even if the student did not receive assistance.

All students applying for financial aid are subject to verification. Those required to verify their applications will be notified by the Financial Aid Office. Failure to comply with this process could result in delays of awarding financial aid.

Testing Requirements for Receiving Financial Aid

Federal regulation requires that any student receiving financial aid, who is admitted to IVCC without attaining a high school diploma or GED certificate, must undergo placement testing in order to remain eligible for financial aid. If a student enters IVCC without having attained a high school diploma or GED certificate and they want to receive financial aid, they must undergo placement testing and participate in remedial coursework, if necessary, to receive financial aid.

Illinois State Scholarship (ISSC)

Any resident of Illinois may apply for this scholarship. Based only on family financial information, it has helped more students than any other form of aid. Eligible students receive awards which usually cover all the tuition and activity fees at IVCC for two semesters.

Pell Grant

Pell Grant is the largest source of aid in the nation. Eligible students receive grants ranging from $150-$1,410 for two semesters of full time attendance at IVCC. This money is used for any education expense such as transportation, books and housing.

College Work Study

Work-study is a program designed to help students find part time employment on campus or at local non-profit agencies. If any student is considering working on campus they should contact the office of financial aids. It is recommended that students fill out the ACT Family Financial Statement when applying for this form of financial aid.

Supplemental Educational Opportunity Grant (SEOG)

A supplemental grant is additional gift assistance which is awarded to students with demonstrated financial need.

Illinois Guaranteed Student Loan (IGLP)

This is the only educational loan available to IVCC students. IGLP is the least desirable form of assistance and should be considered only after all other sources of aid have been tried. The loan is basically between the student and the lender. Initial application is made on the financial aid application. An interview with the Director of Financial Aid is required. Repayment of principle and interest generally begins six months after the students leaves school. The interest rate is currently 8%.

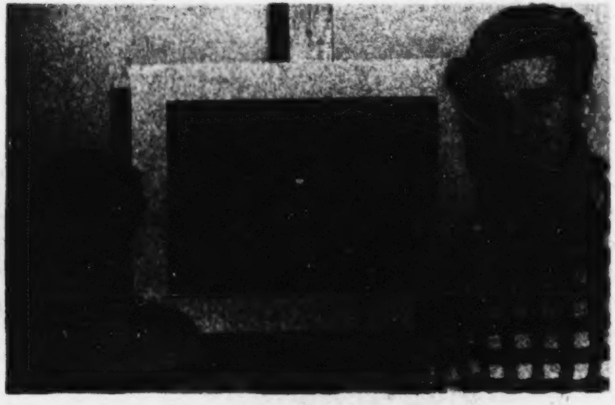
Illinois Veteran's Scholarship

The State of Illinois will pay all tuition and activity fees for most veterans attending IVCC, the requirements are:

1. Veteran was a resident of Illinois before entering service.
2. Served at least one year of active duty (exceptions made for early medical discharge).
3. Obtained a general or honorable discharge.
4. Must have served honorably in the U.S. Armed Forces (excluding the Student Army Training Corps) on or before May 7, 1985, unless the student had previously used the Veteran's Scholarship.

To apply for the scholarship submit a copy of your discharge papers (DD-214) and application form to the Illinois State Scholarship Commission.

NOTE: Hours attempted is defined as the total credit hours you are enrolled in as of the last date of tuition refund.



Financial aid recipients' satisfactory progress is evaluated after the completion of each semester of the academic year. Evaluations will be based on courses attempted or completed at Illinois Valley Community College and any coursework transferred from another college and accepted at IVCC. Should the evaluations indicate the terms of the policy have not been met, the student will be denied future financial aid. Earned A, B, C, D, or P grades are considered completed grades. Incompletes, withdrawals, E's, F's, WF's, and WP's are not considered complete grades but are evaluated in the total hours attempted. Audits, proficiency tests, and non-credit courses are not included in the total number of credit hours attempted, therefore not considered toward credit hour completion. For a student to successfully pursue his education remedial classes may be required to update preliminary skills. If these remedial skills are needed, a student's total hours of course work may be more than the 65 needed for graduation. Extenuating circumstances that may have caused nonprogression, if fully documented, can be reviewed by the Director of Financial Aid for possible waiver of financial aid denial.

In reviewing the satisfactory academic progress of a student receiving financial aid, the following considerations will be made:

(a) The total GPA.
(b) The previous semester's GPA. This can be a considering factor in the initial disbursement of aid or the continuing of aid. A student can show by one semester of improved grades that he/she is able to now complete college course work. This issuing or continuing of financial aid is at the discretion of the financial aid director.

5. Students not meeting the academic standards will be placed on warning status with the financial aid office. If the following semester they can not maintain academic standard they will be placed on financial aid probation with IVCC's Office of Financial Aid.

6. Reinstatement - The policy does not preclude a student from enrolling in subsequent semesters and reinstated by the Financial Aid Office when a student satisfies requirement I, II, or IV above that caused termination of financial aid.

Scholarship Program Application For Members of the Illinois National Guard or Illinois Naval Militia

Members of the Illinois National Guard or Illinois Naval Militia who have served at least one year and who possess all necessary entrance requirements may make application for a scholarship to be used at an Illinois state controlled university or public community college.

FOR MORE INFORMATION CONTACT THE OFFICE OF FINANCIAL AID.

CONTINUING EDUCATION

The Office of Continuing Education is the outreach office for college activities. Non-credit instruction, adult education, economic development, special training, and aging programs are administered by the office. Off-campus college credit courses and the evening college are supervised in cooperation with the Office of Academic Administration. Enrichment and vocational non-credit mini-courses are developed. Basic education is provided adults who have not obtained a high school diploma. A Small Business Development Center and Dislocated Workers Assistance Center are offered. Specialized training is developed for business and industry. Transportation, meals, and information services are provided seniors in the Neighborly Older American program. Every effort is made to help the community to respond to its economic development needs and extend educational services throughout the college area.

The Illinois Valley Senior Center Cookbook is displayed by senior citizens who contributed to it. The Senior Center is part of Project NOA, an older Americans programs administered by IVCC.

NON-CREDIT MINI-COURSES

Mini-courses are developed each semester to satisfy expressed interests in a wide variety of enrichment and vocational skill areas of content. They are offered evenings on-campus and at a half dozen or more off-campus sites. A person may enter a calligraphy course at Streator, a history program on-campus, a horse handling course at Westbrook Stables, an accounting course in Ottawa, a microwave course in Seneca, a word processing course at Tiskilwa, an adult recreation program at Mendota, or a delicious desserts course at Princeton. Persons are encouraged to contact the Office of Continuing Education with suggestions for new programs they might like taught in their community.

The non-credit mini-course program is designed to quickly respond to needs for new areas of instruction. Faculty are drawn from the community, often from a pool of practicing specialists in the field to be studied. The program is practical and each course must on the average be financially self-supporting.

ADULT .EDUCATION

Adults who have received less than a high school diploma in their formal education may find renewed educational opportunities in this program. English as a Second Language (ESL), Adult Basic Education (ABE), General Educational Development (GED), and Life Skills Training (LST) make up the Adult Education program. All instruction and on-site study materials are provided at no participant cost. Evening classroom courses in ESL and GED are provided at Streator, Ottawa, Mendota, and Princeton. An ABE class is provided at Streator and individualized ABE instruction is provided in the Adult Learning Center Located on the college campus. Individualized instruction is also provided in GED and groups of students may enter LST instruction in the Adult Learning Center during day and evening hours.

LITERACY EDUCATION

Project I - R.E.A.D. provides literacy education services to adult students functioning below the sixth grade level. Trained tutors support teaching efforts in the Adult Learning Center and extension classes in addition to providing one-to-one outreach instruction in libraries and other public sites throughout the college district. A literacy coordinator/trainer and two literacy specialists work with students and volunteers in Project I - R.E.A.D.

ESL - English as a Second Language provides programmed instruction in the basic language skills of speaking, listening, reading, and writing English to students with beginning, intermediate, or advanced English proficiency. Students in ESL may also work in the ABE or GED programs as they progress through higher levels of pronunciation, composition, vocabulary, and comprehension in English.

GED - General Educational Development provides concentrated instruction directed toward the skills and information needed to secure the GED certificate which is equivalent to a high school diploma for adults age 18 and over whose high school class has graduated.

LST - Life Skills Training provides adults job seeking skills, constitution, and citizenship training in a group learning environment.

ALC - The Adult Learning Center provides individualized instruction in ABE and GED areas of content. Group instruction is provided in LST areas of study. Literacy training is provided on an individualized basis. Individualized instruction is organized under a Coordinator and provided by a team of lead teachers, recordkeepers, teacher aids, and volunteers. A Voluntarism in Teaching Specialist and an Information and Referral Specialist support the program. A separate set of instructors provide LST group instruction.

GED CERTIFICATE TESTING CENTER - IVCC serves LaSalle and Putnam Counties and most other parts of counties found in the college area as an accredited GED Testing Center. Bureau County students are tested at the office of the Bureau County Regional Superintendent. The test is given in both English and Spanish in five content areas: Writing Skills, Social Science, Science, Reading Skills, and Mathematics. Passing a test on the Illinois and U.S. Constitution is also required.

GED GRADUATION - An annual ceremony for IVCC students who have completed their GED course of study and have received the GED during the previous year are honored for unique achievement in attaining a high school certificate. Scheduled in late spring, the graduation serves as a starting point for future educational involvement.

GED MERIT SCHOLARSHIP - A scholarship awarded to as many as 10 GED recipients for academic excellence reflected through high GED test scores. Scholarship recognition and appropriate financial awards are used to encourage students to continue their education at IVCC.

SPECIAL TRAINING

To fulfill its commitment to provide educational services which assist in the growth and development of the community, the Office of Continuing Education works with college faculty, business, industry, government, and allied health organizations to implement two major services--specialized training and advisory or problem solving services.

Specialized Training - To meet the continuous need for more and higher level knowledge of increasingly complex technology, special training programs are developed and conducted for all segments of the business and service community. In consultation with individual or groups of companies, training needs for the upgrading of knowledge and skills are identified. Specific training plans are then tailored to meet those unique requirements and are conducted within the requesting organization's facilities or on-campus to obtain the best possible results. No training requirement is beyond consideration, as experts in a wide range of subject matter can be and are recruited from college faculty, community, state, and natural organizations to provide needed training.

These programs, initially developed for specific companies, are periodically offered to all companies through distribution of a catalogue of special training programs in such diverse subjects as Nursing Ethics, Business Planning, Marketing and Sales, Micro-computers for Small Business, Basic Machinist, Electronics Trouble-shooting, Hydraulics, Maintenance Mechanics, Numerical Control Machining and Programming, Supervision, Automation, Project Management, and many others.

Through grants from the state for economic development, many of these programs are conducted at a minimal cost to participants.

Small Business Development Center - A fully staffed office provides important services to assist those who own or would like to own a small business, as a part of the college's continuing program to contribute to the economic development of the district it serves. Full-time business specialists guide and counsel small businessmen and entrepreneurs in developing business plans; in obtaining loans and capital formation; forecasting; and other business areas. Assistance in government contract procurement is also provided through the Center. An additional service is available to assist inventors and innovators in the evaluation and eventual commercial- ization of marketable, patentable, and/or proprietary ideas through an Inventure Technology Commercialization program.

Illinois Valley Regional Dislocated Workers Assistance Center - The Dislocated Workers Center provides employment and training services to residents of Bureau, LaSalle, Putnam, Lee, and Whiteside counties who are unemployed due to a layoff or a business closing. Eligibility is based on unemployed status, not income. Retraining assistance is available through various certificate programs at Illinois Valley Community College and Sauk Valley College. Individual training programs may be developed to meet specific needs. On the job training is also offered. Employment assistance's goal is to obtain placement in a well-paying, permanent job. The sevices include developing resumes, learning interview techniques, and job leads and referrals. On the job training offers unique training opportunities and provides incentives to employers.

PROJECT NOA (Neighborly Older Americans)

Project Neighborly Older Americans is an extensive program serving older Americans in Bureau, LaSalle, and Putnam counties. Older Americans in the IVCC district can have many of their educational, nutritional, and social needs met through the project with sites at 17 locations, including a Senior Center on the IVCC campus.

Services available through Project NOA include:

- Seventeen luncheon sites offer a delicious well balanced meal containing at least 1/3 of the daily adult nutritional requirement. Meals are served Monday-Friday between 11:30 a.m. and 12:00 noon. Recreation and nutrition programs are also offered at these sites.

- The new Illinois Valley Senior Center - this multi-purpose Senior Center serves as a community focal point for older Americans; a place where individuals and groups come together for services and activities which will support their independence and encourage their involvement in and with the community. A variety of opportunities are available: education, creative art, leadership development, recreation, advocacy, health and fitness, intergenerational programs, and other special interest programs. Other services available: congregate and home delivered meals, transportation, information and referral on aging and related services. Square dancing, kitchen bands, bingo, and card playing are just some of the activities waiting for you!

- Transportation is provided - rides to the nutrition sites, the IVCC Senior Center, special appointments, and for NOA's shopping assistance trips--please call reservations 24 hours in advance.

- Information on Social Security, tax rebates, circuit breakers, and other matters concerning Seniors is provided and explained.

- Home delivered meals to those who can not get out are available to those who qualify.

- Outreach - to assess needs and help Seniors find ways to meet these needs is offered.

- Volunteer Opportunities - NOA needs volunteers! Many positions are available. One or two hours a day would help serve the Seniors in your area. Discover your interests, develop your talents, and strengthen your skills! Old age is a triumph! Share your talents--take this challenge and join us!

These community resources are open to all persons in the IVCC district who are age sixty and over and their younger spouse. Please join us, its for you!

Project NOA is sponsored by Illinois Valley Community College, Department of Continuing Education and Community Services, Western Illinois Area Agency on Aging, and the Illinois Department on Aging.

STUDENT STATUS INFORMATION

CLASSIFICATION OF STUDENTS

Freshman

A student with fewer than 30 semester hours of college credit is given freshman status.

Sophomore

A student who has completed a minimum of 30 semester hours of credit will be given a sophomore status.

GRADING SYSTEM

A	- Excellent - 4 grade points per semester hour.
B	- Good - 3 grade points per semester hour.
C	- Average - 2 grade points per semester hour.
D	- Lowest passing grade - 1 grade point per semester hour.
F	- Failure - 0 grade points per semester hour.
P	- Passing - not included in computing grade point average.
WP	- Withdrawn Passing - not included in computing grade point average.
WF	- Withdrawn Failing - included in computing grade point average.
INC	- Incomplete - not included in computing grade point average.

PASS/FAIL GRADING

Students enrolling in courses designated as continuing education offerings (courses having a middle digit of "1") may elect a pass/fail option. Students electing the pass/fail option must declare their intent at the time of registration. No more than twelve semester hours earned in pass/fail courses are applicable to a certificate or degree offered by the college.

GRADE OF "INCOMPLETE"

"Incomplete" is a temporary grade assigned when illness, unavoidable absence, or other reasons satisfactory to the instructor prevent completion of the course requirements by the end of the semester. A grade of "INC" must be removed as designated by the instructor, but not later than the last class day of the semester following the issuance of the incomplete.

If the incomplete is not made up within the allotted time, the student must repeat the course to earn credit for it.

Veterans must make up incomplete grades promptly to insure continued receipt of G.I. Bill benefits. Questions should be directed to the Student Records Office.

Any student enrolled in an open entry/open exit course may be given a "W" or "WF" at anytime throughout his/her semester.

AUDITING A CLASS

Students may enroll to audit classes after late registration is completed, subject to maximum class size limitations. No change from audit status to credit status, or vice versa, is permitted. Audit students pay the regular tuition rate.

ATTENDANCE/STUDENT PROGRESS

Students are expected to attend all classes regularly. If absence from class is unavoidable, it is the student's responsibility to explain the absence to his instructor(s) and arrange to complete any work missed.

If an instructor feels the number of accumulated absences is interfering with the student's progress and ability to successfully complete the course, the student may be dropped from the course without notice.

In open entry/open exit courses taught in a non-traditional manner, steady progress toward completion of course objectives is required of all students. Students not making normal progress in fulfilling course objectives may be dropped from the course without notice.

WITHDRAWAL FROM CLASSES

To withdraw from a class while continuing to carry other courses, a student must initiate a withdrawal request with the instructor whose class he/she wishes to drop. The instructor will complete a withdrawal form and submit it to the Student Records Office for processing. The student's record will not be changed until the signed, validated withdrawal form is received by the Records Office.

Approved official withdrawals through the twelfth week of the regular semester (the fifth week of the Summer session) will be given the grade of "WP".

No withdrawals will be permitted beyond the 16th week of the regular semester (or the 6th week of the Summer session).

Any student who stops attending classes without officially withdrawing may receive the grade of "F" for the course(s).

An "incomplete" may be changed to a "W" or "WF" by the instructor for any student in an open entry/open exit course, if satisfactory progress toward completion of the course is not made within a reasonable amount of time.

WITHDRAWAL FROM THE COLLEGE

Students desiring to withdraw completely from the college (drop all classes) must initiate this request with the Dean of Student Development, Room C-218.

TRANSCRIPTS

Transcripts will be released only upon written request by the student. Each student is entitled to one transcript free of charge. A fee of $2 will be charged for each additional transcript. Transcript request forms may be obtained in the Records Office.

SCHOLASTIC REQUIREMENTS

The scholastic requirements of the college are detailed in the chart below. To remain in "good standing", a student must achieve the minimum cumulative grade point average (G.P.A.) stated in the chart for the number of hours attempted in his declared program. Only students who have earned a cumulative G.P.A. of 2.0 (C) or better will be recommended for transfer to other colleges and universities.

All students will be subject to the same scholastic requirements. Academic probation or dismissal standards will not apply until a student has attempted a total of at least nine (9) semester credits.

TYPE OF DEGREE	TOTAL CREDIT HRS. ATTEMPTED	ACADEMIC PROBATION
A.A.,A.S. A.A.S.,A.L.S.	9 - 29	0.00-1.49
All Certificates	over 29	0.00-1.99
All other students	9 - 29	0.00-1.24
	over 29	0.00-1.49

TYPE OF DEGREE	ACADEMIC DISMISSAL (after 1 semester on probation)	GOOD STANDING
A.A.,A.S. A.A.S.,A.L.S.	0.00-0.99	1.50 or more
LPN & DA Certificates	0.00-1.24	2.00 or more
All other students	0.00-0.99	1.25 or more
	0.00-1.24	1.50 or more

Student Status (Cont'd.)

ACADEMIC PROBATION

A student on probation may not enroll for more than fifteen (15) credit hours.

A student on academic probation for three (3) consecutive semesters will be subject to academic dismissal. A student on academic probation may be subject to academic dismissal if the cumulative grade point average is not raised in subsequent semesters.

ACADEMIC DISMISSAL

A student will not be placed on academic dismissal status without first having been on academic probation.

A student on academic dismissal may register for up to six (6) hours in summer session in an attempt to improve his grade point average. A student who is academically dismissed may, after one regular semester, petition to the Dean of Student Development for readmission.

REQUIREMENTS FOR GRADUATION

To qualify for any of the associate degrees conferred by the college, a student must complete the specific requirements of the degree and the following requirements which apply to all associate degrees:

1. Successful completion of a minimum of sixty-four (64) semester hours of credit.
2. Of the minimum of 64 semester hours of credit required for the Associate in Arts and Associate in Science Degrees, sixty (60) semester hours must be earned in courses having a center digit of "0".
3. Completion of either Political Science 100, or History 200, or passage of the Constitution examination required by law, or certified by high school transcripts.
4. Completion at Illinois Valley Community College of at least one-fourth of the semester hours required for graduation. Only courses identified as freshman-sophomore level courses at the institution where taken will be accepted at IVCC as credits toward an Associate Degree.
5. Attendance at Illinois Valley Community College during the semester in which graduation requirements are completed.
6. Successful completion of all required courses for the specific Associate Degree desired and required minimum cumulative grade point average.
7. Credits earned in Adult Driver's Training and the General Education (G.E.D.) courses are not applicable to the Certificate in General Studies or the Associate Degrees. Credits earned in College Preparedness Program offerings (any course number below 100) are applicable only to the Certificate in General Studies.
8. Filing an intent to graduate and paying diploma/certificate fee.

The determination for each student of satisfactory completion of degree requirements for graduation will be made using the requirements stated in the catalog in effect at the time of graduation.

Insofar as it is possible, students making normal progress toward satisfactory completion of their degree requirements and who have remained in continuous enrollment, may elect to be evaluated by the requirements stated in the catalog in effect at the time of their entry to IVCC. Normal progress is defined as enrolling for at least the minimum full-time credit load of 12 hours.

Intent to graduate forms must be filed during the semester in which graduation requirements will be fulfilled. The deadline for filing the intent to graduate will be publicized in the Apache. The diploma/certificate fee must be paid at the time the graduation application is filed.

Cap and gown measurement dates will be announced between March 15 and April 15 for students desiring to participate in spring commencement exercises. Students wishing to be measured for cap and gown should contact the Bookstore for measurement and the exact deadline for cap and gown orders.

Honors at Graduation

Honors at commencement will be as follows:

Cum Laude - g.p.a. of 3.25 to 3.74
Magna Cum Laude - g.p.a. of 3.75 and above
Summa Cum Laude - Highest rank in scholarship above 3.75.
Certificate honors - g.p.a. of 3.75 and above (minimum of 24 hours required in a certificate to be eligible).

A minimum of 32 semester hours must be completed in an Associate degree at IVCC after transfer or change of degree intent to be eligible for honors at commencement.

GRADE EXCLUSION POLICY

The purpose of the grade exclusion policy is to provide the mature students an opportunity to achieve his/her educational objective without the demotivating effects of previously earned failing grades. To be eligible for consideration under this policy, a student must meet the following criteria:

1. He/she can not have attended any post-secondary educational institution for two consecutive semesters. (Summer sessions are not counted as semesters for this policy, but three consecutive academic quarters are considered the equivalent of two semesters.)
2. Upon returning to IVCC after the two consecutive semester out-of-school period, he/she must complete a minimum of 12 semester hours with a grade point average of 2.00 or better.
3. Upon satisfying criterion (2), the student must apply to the Director of Admissions and Records for implementation of the grade exclusion policy.

Explanatory Note: Only Failing ("F" or "WF") grades will be excluded from computation of the cumulative grade point average under this policy. If the student wishes to repeat some courses in which filing grades were received, he/she may utilize the college repeat policy for those courses by completing the appropriate form in the Student Records Office.

Students planning to transfer to another institution are cautioned that the receiving college may use all grades earned in repeated or excluded courses for computation of grade point average for admission or other purposes.

HONORS

The academic honors recognized at IVCC include the following:

Dean's List

The Honors List will include students earning a grade point of 3.25 to 4.00 in 12 or more semester hours. The 12 semester hours exclude non-credit courses, courses taken on pass/fail, and courses in College Preparedness Program.

Honors at Graduation

Honors at commencement will be as follows: Cum Laude - g.p.a. of 3.25 to 3.74
Magna Cum Laude - g.p.a. of 3.75 and above.

Thomas J. McCormack Scholars

Students earning a minimum grade point average of 3.75 in 14 or more semester hours each of the first three semesters will be designated as Thomas J. McCormack Scholars at the annual Scholastic Honors Banquet held in March. Mr. McCormack was principal of LaSalle-Peru Township High School from 1903-1932 and the first director of the L-P-O Junior College which was housed at the high school for many years.

Leslie L. Rabe Award

This award is presented to the student who is graduated Summa Cum Laude. The student's name is engraved on the award which is displayed in the awards and trophy case in the lobby of building C. The award honors the memory of Mr. Rabe who was for may years chairman of the department of mathematics. This award is designated at graduation on the commencement program.

F. W. Matthiessen Award

This award is presented during commencement to the student who has not only attained the highest grades but who has also distinguished himself/herself in service to the college and to the local community. This distinguished award is given to commemorate the civic leadership, community service, and philanthropic spirit of Mr. Matthiessen, one of the area's most prominent industrialists and philanthropists.

Degree of Certificate Classification

Every student desiring to receive a degree or certificate from IVCC must be classified as an unconditionally admitted student and be officially classified in the proper degree or certificate program. Students planning to complete graduation requirements should check during registration for their last semester of classes to insure the proper degree of certificate classification.

Official Change of Degree or Certificate Objective

If students wish to change their degree or certificate objective, it is their responsibility to complete the Curriculum Change form in the Student Records Office. The date the Curriculum Change form is received in the Records Office will serve as the date of the official change to a new degree or certificate objective.

Applicable courses taken at IVCC will then be applied to the requirements of the new objective. Those courses will be listed on the IVCC transcript under the heading, "Changed to ________ Degree (or certificate)" followed by "Accepted from previous work: ________".

The grades for such previous course work will be included in the calculation of the g.p.a. for graduation if fifty percent or more of the credits required for the degree or certificate are from courses taken prior to the change in objective.

A change in degree objective is defined as:

1. A change from either the A.A. or A.S. degree to an A.A.S. degree or a certificate program;
2. A change from the A.A.S. or certificate program to a different A.A.S. or certificate program;
3. A change from A.A.S. or certificate program to an A.A. or A.S. degree; or
4. A change from or to an A.L.S. degree.

A change from an A.A. degree to an A.S. degree or vice versa is not defined as a change in degree objective.

John Murphy (far left), chairman of IVCC's division of engineering, mathematics, and physical science, stands with members of IVCC's Engineering Honor Society, including Randy Eurich, Dan Wrobleski, Don Lukach, Clint Foster, and Jeff McKnight.

Certificates

A Certificate will be awarded to students who complete an approved program of general studies or continued education with a cumulative grade point average of 2.0. The Certificate shall bear the name of the program completed.

RESIDENCY (Definition)

30 DAY RESIDENCY
Qualifies you for In-District
$13 per Credit Hour Tuition*

Students should be able to provide one or more of the following:

1. *Voter registration in District 513.*
2. *Evidence of tax, utility, or rent receipts in District 513.*
3. *Driver's license and/or vehicle registration showing an address in District 513.*
4. *Full or part-time employment in District 513.*
5. *Other documents which can help verify residency in District 513.*

Newcomers to the Area - Welcome!

A student who resides with his parents or guardian in Community College District 513 is a resident student.

An emancipated student who is completely self-supporting and who has resided in Community College District 513 for at least 30 days prior to his registration at Illinois Valley Community College shall be considered a resident of the District.

A. REPEATING A CLASS

Students may repeat courses in which D's, F's, and WF's have been received. The second grade received will be used in computing the cumulative grade point average. However, all grades received will be recorded on the permanent record, and other institutions may include both grades in evaluating the student record.

A course may be repeated only once for the purpose of raising the grade for the course and the cumulative g.p.a. After once repeating a course, a student wishing to enroll again for the same course may only do so as a non-credit student.

A student wishing to repeat a course must complete the appropriate form in the Student Records Office.

B. PROFICIENCY EXAMINATION POLICY

A student may petition to take a proficiency examination in certain courses. The examination may be taken after approval by the appropriate Division Chairperson concerned, and is open to those students who meet the criteria established by the faculty responsible for a given course or curriculum. Proficiency may be by written and performance examinations as determined by the respective division.

Fee:

A non-refundable proficiency fee of $10 is payable at the time the student makes application for a proficiency examination. If the student passes the exam the student can then pay the regular tuition for the course and receive credit for the course.

Credit:

Credit may be granted for successfully passing a proficiency examination. A maximum of one-fourth of the semester hours required to complete a certificate or a degree may be earned through proficiency examinations.

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*Subject to change.

Grading:

No grade is given for proficiency examinations. A "pass" will be recorded if the examination performance is satisfactory. No official record is made of failures. The division in which the course is taught will place on file the standards that must be attained to pass the examination.

C. C.L.E.P. CREDIT (College Level Examination Program)

IVCC accepts C.L.E.P. general and some subject examinations as follows:

1. General Examinations - 3 credits for each exam: mathematics, natural science and social science- history if a minimum acceptable score to the college is achieved (contact Student Development Office).
2. Additional credits may be earned through certain C.L.E.P. subject examinations.
3. No C.L.E.P. exam, general or subject, will satisfy the lab requirement in the mathematics-science area for the general studies requirements for the college's A.A. or A.S. degree.
4. A maximum of one-fourth of degree or certificate credits can be earned through C.L.E.P. exams.
5. No grades are recorded; "PASS" will appear on transcript.

D. TRANSFER CREDIT (From Other Accredited Colleges)

1. Have transcript of credit earned at other colleges sent directly to IVCC Admissions Office - Official Transcripts Only.
2. Credit to be accepted at IVCC must have at least a "D" to be accepted. A "D" course may need to be repeated in certain IVCC programs.
3. G.P.A. (Grade Point Average) will not be transferred or computed into IVCC g.p.a. unless credits equal 50% or more of the credits on an IVCC degree or certificate.

E. ADVANCED PLACEMENT COURSE POLICY

Students may be awarded credit for scores of 3, 4 and 5 on the Educational Testing Services Advanced Placement Examinations. Credit will be awarded for those examinations which correspond to equivalent Illinois Valley Community College courses. Students who have taken the College Board's Advanced Placement Examinations should arrange to have their official score reports submitted to the Office of Admissions and Records. Credit awarded in this manner will be added to the semester credit hours earned but not to the semester hours attempted or the grade point average on student transcripts.

F. MILITARY SERVICE CREDIT

Veterans: Options open to veterans in evaluating prior military experiences:

1. Up to four hours of physical education and two hours in health if honorably discharged and with more than 12 months of active military services.
2. Elective credit - based upon American Council of Education's "Guide to the Evaluation of Education Experiences in the Armed Forces", an evaluation of completed military training programs: up to six credit hours. Documentation necessary.
3. Major field of study credit - upon request an evaluation of directly related military training will be made using the same source as in No. 2 above. Documentation necessary.

U.S.A.F.I. Veterans may request advanced standing for college level USAFI correspondence study (an official USAFI transcript is necessary).

Cooperative Army and Navy Programs: IVCC cooperates with the U.S. Navy in the "Direct Procurement Enlistment Program" and IVCC cooperates with the U.S. Army in the "Stripes for Skills" and "Project Ahead" programs.

Details can be obtained through Navy and Army recruiters.

REQUIRED PLACEMENT TESTING

A. The college requires testing and counseling of all first-time full-time students (12 or more credit hours).

B. Students transferring from other colleges and universities, with from 9 to 29 credit hours attempted, and who plan to enroll full-time, will be required to take testing in reading, English, and mathematics unless they meet the following criteria (as documented on an official transcript); they will be required to enroll in appropriate remedial courses to meet 3 credit hours in reading, English, and mathematics.

1. A 2.00 grade point average in at least 9 credit hours completed; and
2. A "C" or better grade in a college freshman English class; and a "C" average or better in mathematics if needed within their curriculum.

This policy seeks to assure the successful completion of a degree or certificate program of 30 or more credit hours by students at this college.

Dr. William Gnagey (left), a psychology professor at Illinois State University, discussed theories of motivation when he spoke at IVCC as part of the college's lecture series. He is pictured with IVCC psychology instructor Gil Meyer.

READING REQUIREMENT

Students who receive a total raw score of 64 or less on the Nelson Denny Reading Test (college reading placement test) are required to enroll and successfully complete a minimum of three hours of developmental reading courses. Since these courses will help students improve study and reading skills vital to success in academic courses, it is recommended that the reading requirement be met prior to or during the first semester of full-time enrollment.

Visitors from Osaka, Japan, with Dr. Al Wisgoski (left) and William Danley (second from left) discussing possibility of faculty and student exchange.

TUITION AND FEES*

A. Tuition

1. Students shall pay $13 per semester hour tuition if they are residents of District 513 (see preceding page).

2. Foreign nationals, who are live-in guests of a sponsor who himself is a legal resident of Community College District 513, shall be charged only the in-district tuition and fees as pertain to credit courses in which they register at IVCC.

3. Legal residents of Community College District 513 who are 65 years of age or older may enroll in regularly scheduled classes tuition free, provided that classroom space exists and tuition paying students enrolled constitute the maximum number required for the course.

B. Extra Charge for Non-Resident Students (See Residency Definition)

Students who are not residents of Community College District 513 shall pay an extra charge equal to the per capita cost per semester hour less tuition and state apportionment. Students may require their local high school district to pay this extra charge if they apply prior to July 1 preceding the opening of school and provided they do not live in another community college district. Out-of-district high schools will be billed after the midterm of a semester for their students on a charge-back who were officially enrolled at IVCC through the 10th day of the semester.

C. Fees*

1. A diploma/certificate fee of $10 shall be paid by all students qualified for graduation.

2. A student activity fee is payable at the beginning of each semester by all students enrolled, at the rate of $1 per credit hour up to a maximum of $15.

3. Course supply fees will be charged.

4. An add fee of $5.00 applies to all student-initiated requests to add a new course or change a section after the semester has begun.

D. Fee Payment

Tuition and fees are due and payable at the time of registration for each semester. Students are not permitted to attend classes until their bills are paid.

Students who have not paid their tuition and/or fees, or who have not been issued tuition and/or fee deferments, will be dropped from their classes for non-payment on the day before the first day of classes each term. Students with deferments for tuition and/or fees must pay their bills in full by the week prior to midterm or they will be dropped from their classes. Exceptions must be approved by the Dean of Student Development.

E. Refund of Tuition and Fees

Refund of tuition and fees will be made on the following basis:

1. If a student withdraws officially from the college on or before the tenth day of the fall or spring semester or the fifth day of the eight week summer session, one-half of all tuition and fees will be refunded.

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*Tuition and fees are subject to change by the Board of Trustees (District 513) action.

2. Official withdrawal from the college after registration and payment of fees, but before the beginning of classes, will entitle the student to a refund of all tuition and fees. When a class is cancelled by the college, a full refund will be given.

3. Out-of-district high schools will be billed after the midterm of a semester for their students on chargeback who were officially enrolled at IVCC through the 10th day of the semester.

F. TUITION DEFERMENT POLICY

Students who have not paid their tuition and/or fees, or who have not been issued tuition and/or fee deferments, will be dropped from their classes each term. Students with deferments for tuition and/or fees must pay their bills in full by the due date indicated on the deferment or they will be dropped from their classes, and not allowed to re-enter that term. A student who is dropped for non-payment of the unpaid balance forfeits any right to a refund of tuition and/or fees already paid. Exceptions must be approved by the Director of Financial Aid or by the Dean of Student Development.

Robert Irvine presents a criminal justice scholarship to Monica Wheeler of Ottawa.

Chemistry instructor John Winkelmann presents a $300 scholarship from the Joliet Section of the American Chemical Society to Debbie Beck. Looking on is chemistry instructor Bob Byrne.

STUDENT ACTIVITIES AND ORGANIZATIONS

Opportunities for the development of leadership, social and interpersonal relationships, skills and character are offered through participation in recognized campus organizations. Included among these are professional and honorary societies related to the academic areas of the college, departmental organizations, service and social organizations and recreational groups. Each organization, in fulfilling its obligation as a part of the college, has a faculty member or administrator as an advisor.

All social activities planned by the student clubs are held under the supervision of the faculty or administration advisor.

IVCC head basketball coach Dean Riley congratulates the co-winners of the 1986-87 Bob Beals MVP award, Steve Kennedy (left) and Scott Miller.

Greg Osland, head women's basketball coach, congratulates Valerie Whitler, winner of the Lady Apaches 1986-87 MVP award.

SOME OF THE CURRENT CLUBS AND ORGANIZATIONS ARE OUTLINED AS FOLLOWS:

Christian Fellowship
American Chemical Society
Apache (campus newspaper)
Collegiate Chorale
Computer Club
LeCircle Francais (created to promote interest in French language and culture)
Phi Theta Kappa (national junior college scholastic fraternity)
Tau Alpha Pi (national junior college technology fraternity)
Intramural Athletics
Nursing Student Association
Criminal Justice Club

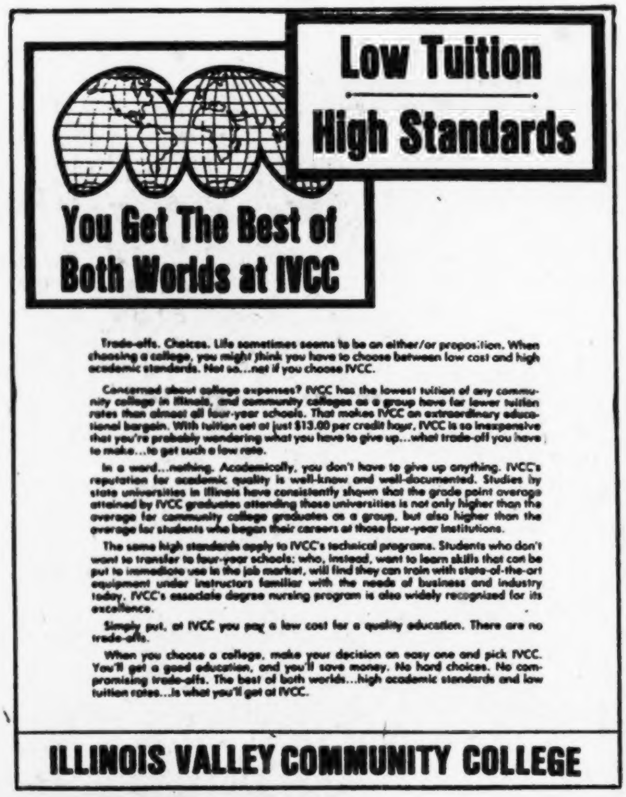
ATHLETICS

Men	Men & Women	Women
Football	Track	Basketball
Basketball		Volleyball
Baseball		Softball
Tennis		
Track		

STUDENT SENATE

The Student Senate is the officially recognized student government organization at IVCC. The Senate, composed of four officers and student representatives to the Board of Trustees, and representatives of the freshman and sophomore classes (based on enrollment) meets weekly to take action on matters of concern to the entire student body and to plan events and activities for students at the college. In addition, members of the Senate serve with faculty and administrators on various committees such as: Artist Lecture; Curriculum and Academic Standards; Forum for Communication, etc.

Watch for notices regarding Student Senate petitioning and elections during September and April. Questions regarding the Student Senate, its membership and activities, should be directed to the Dean of Student Development, Room C-218.



Low Tuition

High Standards

You Get The Best of Both Worlds at IVCC

Trade-offs. Choices. Life sometimes seems to be an either/or proposition. When choosing a college, you might think you have to choose between low cost and high academic standards. Not so...not if you choose IVCC.

Concerned about college expenses? IVCC has the lowest tuition of any community college in Illinois, and community colleges as a group have far lower tuition rates than almost all four-year schools. That makes IVCC an extraordinary educational bargain. With tuition set at just $13.00 per credit hour, IVCC is so inexpensive that you're probably wondering what you have to give up...what trade-off you have to make...to get such a low rate.

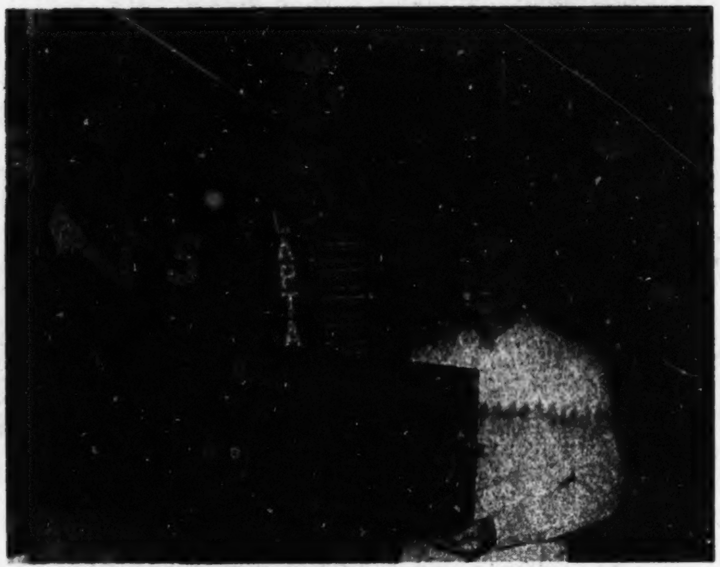
In a word...nothing. Academically, you don't have to give up anything. IVCC's reputation for academic quality is well-know and well-documented. Studies by state universities in Illinois have consistently shown that the grade point average attained by IVCC graduates attending those universities is not only higher than the average for community college graduates as a group, but also higher than the average for students who began their careers at those four-year institutions.

The same high standards apply to IVCC's technical programs. Students who don't want to transfer to four-year schools; who, instead, want to learn skills that can be put to immediate use in the job market, will find they can train with state-of-the-art equipment under instructors familiar with the needs of business and industry today. IVCC's associate degree nursing program is also widely recognized for its excellence.

Simply put, at IVCC you pay a low cost for a quality education. There are no trade-offs.

When you choose a college, make your decision an easy one and pick IVCC. You'll get a good education, and you'll save money. No hard choices. No compromising trade-offs. The best of both worlds...high academic standards and low tuition rates...is what you'll get at IVCC.

ILLINOIS VALLEY COMMUNITY COLLEGE



Linebacker Mike Smith receives IVCC's 1986 Patrick Slevin Football MVP Award from Lanny (left) and Joanne Slevin and athletic director Vince McMahon.

Study Program In London

Illinois Valley Community College is a member of the Illinois Consortium for International Studies -- an organization of participating community and junior colleges committed to the nation that the British heritage forms an important thread in American daily life. A period of study in Britain offers American undergraduates the opportunity to deepen their appreciation of literature, theatre, history, art, politics, and economics.

The participating Illinois institutions teach their own program in London, relying on their own faculties, curricula, standards, and styles. All courses have been structured so that academic credits earned by students are part of the regular course offerings. Thus, Illinois Valley Community College students can pursue their associate degrees while utilizing London resources and London experiences.

Generally, courses for the ICIS London program already exist within the current catalogue listings of Illinois Valley Community College and may be taken as electives when offered. Humanities 108, however, exists as the one required course:

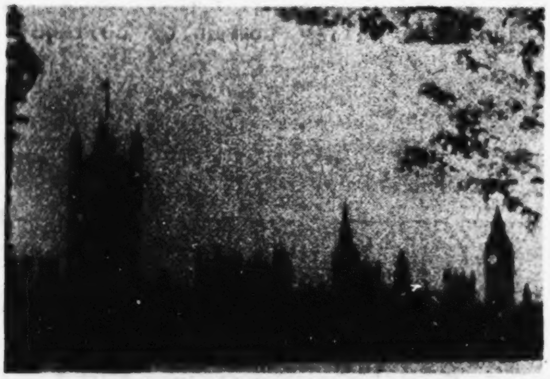
HUM 108. BRITISH CULTURE AND SOCIETY

A special team-teaching seminar on British civilization, covering a variety of interdisciplinary subjects - from an introduction to historic London through American history from a British point of view - and taught by a combination of ICIS faculty and visiting British lecturers. The course includes lectures, discussions, readings, and extensive field trips. Required of and limited to IVCC-ICIS students.

Prerequisite: None
Credit: Three semester hours
Offered: F, SP, SU

For further information on the ICIS London Program, contact:

SAMUEL J. ROGAL, Chairperson
Division of Humanities & Fine Arts
Office: A-218
Phone: (815) 224-2720, Ext. 484



THE ADVANTANGES OF BEGINNING A FOUR-YEAR TRANSFER PROGRAM AT ILLINOIS VALLEY COMMUNITY COLLEGE

Transfer programs are the first two years of a four-year program. After completing two years at IVCC, you can transfer the credits earned to a four-year college or university where you will complete the last two years.

There are many advantages for you in IVCC's two-year transfer program:

- **A history and reputation for producing transfer students at four-year colleges and universities.**
- **Lower costs.**
- **Smaller classes.**
- **Individual attention.**
- **Excellent instruction.**
- **Opportunity to improve reading, composition, and mathematic skills to college level.**
- **Outside the classroom experiences for you in theatre, art music, writing, journalism, social work, physical education, and government.**
- **Loans, scholarships, and on campus work opportunities.**
- **Opportunities to hear nationally known speakers, musicians, and writers.**

THE "ARTICULATION COMPACT"

Based on the articulation compact, Illinois Valley Community College students in good standing, who have completed an Associate in Arts (A.A.) or an Associate in Science (A.S.) degree based on a baccalaureate-oriented sequence and who are admitted to public senior uiversities in the state of Illinois, shall be considered to (A) have attained junior standing and (B) have met their General Educational requirements.

UNIVERSITY TRANSFER SPECIALISTS

ASSOCIATE IN ARTS DEGREE
and
ASSOCIATE IN SCIENCE DEGREE

PREPARATION FOR THE FIRST TWO YEARS OF A FOUR YEAR DEGREE PROGRAM IN THE FOLLOWING FIELDS OF STUDY

AGRICULTURE................ 43
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PSYCHOLOGY................. 90-91
RECREATION................. 92-93
SOCIOLOGY.................. 94-95
THEATRE.................... 95-96
VETERINARY................. 97-98

Students interested in majors not listed may consult any counselor for assistance in planning a program for admission to a senior college. Students intending to transfer should carefully plan their program at IVCC to assure the smooth and acceptable tansfer or credit. The counseling staff is available to assist students in this selection of courses.

IVCC transfer students do well at state universities, studies show

Recent studies prepared by four Illinois universities reveal that transfer students from Illinois Valley Community College record consistently high academic scores while completing their education at four-year institutions and generally outperform transfers from other community colleges.

The studies also reveal that, as a group, IVCC transfer students attain higher grade point averages than students who begin their college careers at four-year schools.

Information concerning the performance of transfer students was supplied to IVCC by Illinois State University, Eastern Illinois University, Southern Illinois University at Carbondale and the University of Illinois at Urbana-Champaign.

The U. of I. report is based on statistics compiled from the records of 28 IVCC students who transferred to U. of I. at the beginning of the 1982-83 school year. After four semesters, 23 of the IVCC transfers had either graduated or were still enrolled in good standing and had a mean grade point average (gpa) of 4.20 on a five-point scale.

By comparison, the mean gpa for all community college transfers at the U. of I. was 3.99, and the mean gpa for students who had entered the University as freshmen was 4.08.

"Another significant finding," said Dr. Hans Andrews, IVCC dean of instruction, "is that IVCC transfers experienced very little 'transfer shock' at the U. of I. Their gpa's after their first semester of work in Champaign were only slightly lower than the scores they achieved at IVCC."

"In fact, the first semester gpa's of former IVCC students at the U.of I. were higher than the gpa's attained by transfers from any other Illinois community college."

"Obviously, such results show we're doing a good job of preparing students for the academic environment they'll enter after leaving IVCC."

At ISU, 258 former IVCC students compiled a mean gpa of 2.83 (on a 4.00 scale) by the end of the 1985 spring semester, compared with a 2.67 gpa for all community college transfer students at ISU and a 2.68 gpa for ISU "native" students who started at the four-year school as freshmen.

Forty IVCC transfer students to Eastern Illinois University achieved a mean gpa of 2.92. While community college transfers as a group had a mean gpa of 2.70, EIU native students had a collective mean gpa of 2.69.

Similar results were found at SIU-Carbondale where 84 transfers from IVCC earned a mean gpa of 2.83 compared with a 2.68 for all community college students and a 2.50 gpa for SIU native students.

"Students who come to IVCC with the intention of later transfering to a four-year college are given a strong background to draw upon," says Dr. Andrews. "The feedback we get from state universities within Illinois is encouraging."

COMPARATIVE GRADE POINT AVERAGES

University	IVCC Transfers	All Community College Students	Native Students	Straight "A" Equals
Ill. State	2.83	2.67	2.68	4.00
EIU	2.92	2.70	2.69	4.00
SIU	2.83	2.68	2.50	4.00
U of I	4.20	3.99	4.08	5.00

PRE-BACCALAUREATE DEGREES

(TWO-YEAR TRANSFER DEGREES)

DEGREE REQUIREMENTS

The Associate in Arts degree will be conferred on those students who have completed the basic requirements for graduation in a pre-baccalaureate program and the following specific requirements:

1. Grade Point Average of 2.0 to 4.0
2. Forty-four (44) semester hours of general education selected as specified from the following areas:

The Associate in Science degree will be conferred on those students who have completed the basic requirements for graduation in a pre-baccalaureate program and the following specific requirements:

1. Grade Point Average of 2.0 to 4.0
2. Forty-four (44) semester hours of general education selected as specified from the following areas:

		A. A.	A. S.
I.	Communications	9	6
II.	Humanities (select 6 hrs. each from groups A & B below under Humanities for A.A. Degree)	12	
	(select any 6 hrs. from either group for A.S. Degree)		6
III.	Science and Mathematics		
	A.A. Degree (2 areas - 1 lab class)	11	
	A.S. Degree (2 areas with one sequence lab)		23
IV.	Social Science		
	A.A. Degree (2 areas)	9	
	A.S. Degree		6
V.	Health, Physical Education and Recreation	2	2
VI.	World Emphasis (select one course designated with a "w" below: 3 credit hour requirement). *This requirement can also be used to meet part of the required hours in II, III, and IV above.)	3*	3*
VII.	Computer Literacy[d]	1	1
	TOTAL	44	44

3. A total of sixty-four (64)[a] credit hours (20 hours elective).
4. Constitution Requirement[e].

THE ABOVE GENERAL EDUCATION HOURS WILL BE SELECTED FROM THE FOLLOWING COURSES:

I *COMMUNICATIONS	Cr. Hrs.
English 101	3
*English 102	3
Speech 101	3

II HUMANITIES	
"A" Emphasis (Literature & Language)	
French 101[b], 102* or 201*, 202*	4
French 203*, 204*	3
German 101[b], 102 or 201*, 202*	4
German 203*, 204*	3
Literature-American 203*, 204*	3
Literature-English 201*, 202*	3
Literature-European 201*, 202*[w]	3
Philosophy 101, 102, 103[w], 105	3
Spanish 101[b], 102* or 201*, 202	4
Spanish 203*, 204*	3
Speech 202	3
"B" Emphasis (Historical & Survey)	
Art 100, 101	3
History 100[c], 101[cw]	3
History 200[c], 201[c]	3
Music 100	3

III SCIENCE & MATHEMATICS	
Biology 101, 102*, 103	4
Biology 104[w]	3
Botany 105*	4
Botany 109* (A.S. only)	3
Chemistry 100 (A.A. only)	3
Chemistry 106*, 107*, (202*, 203*, A.S. only)	5
Geography 101, 102, 105	4
Geography 107 (A.A. only)	3
Geology 106 (A.A. only)	3
Geology 108, 109*	4
Mathematics 100* (A.A. only), 103*	3
Mathematics 104*	2
Mathematics 102*, 105*, 200*, 201*	5
Mathematics 106*, 107*	4
Mathematics 202*, 206* (A.S. only)	3
Physical Science 100 (A.A. only)	3
Physics 109*, 200*, 201*	4
Physics 203*, 204*	5
Zoology 104* (107, 108*, A.S. only)	4

VII COMPUTER LITERACY[d]	Cr. Hrs.
Computer Literacy 101 (or any 1 hr. personal computing course)	1

Those three (3) hour courses which presently exist and are required in some of the curriculums will automatically satisfy this requirement. These courses are:

CSI 101*	CSI 202*	CSI 204*	MTH 205*
CSI 201*	CSI 203*	PC 227	

IV SOCIAL SCIENCE	
Anthropology 100	3
Economics 203[w], 204*	3
Geography 103[w], 104[w]	3
History 100[c], 101[c]	3
History 200[c], 201[c]	3
Political Science 100, 200[w]	3
Psychology 100, 200*	3
Sociology 100, 200*	3

V HEALTH, PHYSICAL EDUCATION & RECREATION	
Health, Physical Education & Recreation 100, 101*	1
Health, Physical Education & Recreation 103, 104	2
Physical Education: Coeducational 100, 101, 103, 106, 205	1
Physical Education: Men 100	1

* Prerequisite course required.

[a] A total of 60 of the 64 credit hours must have a "0" digit (baccalaureate oriented); 4 credit hours may have a "1" center digit (continuing education) or a "2" (occupational).

[b] Students who begin language at the 101 level must complete one year to receive Humanities credit.

[c] May be counted in Humanities or Social Science (not both).

[d] Requirement may be waived in Pre-Medicine, Pre-Chemistry, and Pre-Biology.

[e] Completion of either PSI 100 or HIS 200 or certification recorded on high school transcript or passage of the Constitutional exam as required by law.

Student Interest Code
E-S-A

AGRICULTURE TRANSFER (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Agriculture can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Career opportunities in Agriculture and related fields are abundant and expanding rapidly for the future. Currently, there are more than 25 million people employed in some aspect of U.S. Agriculture, but only about 4 million work directly on the farm or ranch. Related occupational opportunities to the crop or livestock production farmer include Agricultural accounting, Economics, Finance, Marketing, Research, Education, Agronomy, Horticulture, Communications, Mechanization, and Cooperative extension service work.

The University of Illinois offers Bachelor degrees in Agricultural Communications, Agricultural Economics, Agricultural Mechanization, Agronomy, Animal Science, Dairy Science, Horticulture, and Education.

Illinois State University offers Bachelor degrees in Agribusiness, Agriculture Production, Education, and Science.

Western Illinois University offers Bachelor degrees in Agribusiness, Agricultural Occupations, Education, and Agricultural sciences.

Southern Illinois University offers Bachelor degrees in Agricultural Education, Agricultural Industries, Forestry and Plant and Soil Science.

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements for one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
BIO 103 (Prin of Bio) or BIO 101 (Gen Bio)	4
*MTH 105 (Precalculus) or *MTH 106 (Finite Math)	5
AGR 100 (Intro to Field Crop Science)	4
TOTAL CREDIT HOURS	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II)	3
*BOT 105 (Gen Bot) or *ZOO 104 (Gen Zoo) or BIO 102 (Gen Bio)	4
AGR 101 (Intro to Ag Economics)	3
Humanities+	3
Social Science +	3
HPR+	1
TOTAL CREDIT HOURS	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
SPH 101 (Fund of Speech)	3
*CHM 106 (General Chemistry)	5
ECN 203 (Prin of Economics I)	3
AGR 102 (Intro to Ag Mechanization)	3
Humanities+	3
TOTAL CREDIT HOURS	17

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*AGR 103 (Animal Science, (1st 9 weeks)	3
*ECN 204 (Prin of Economics II)	3
Humanities+	6
Electives+	1
Computer Literacy+	1
HPR+	1
TOTAL CREDIT HOURS	15

*Prerequisite--see IVCC college catalog.
+Select from General Education Requirements for Graduation

ART (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Art can be completed at IVCC for most transfer schools.

IVCC counselors have prepared curriculum guides to assist students to select their courses required in this field at a number of four-year Illinois colleges and universities.

Art programs at the various transfer colleges and universities vary in terms of their requirements in the field of art.

Student Interest Code

A-I-R Artist

A-S-I - Art Teacher

Career Leads

- Art Teacher
- Artist-in-Residence
- Recreation specialist/instructor
- Art critic/writer
- Art therapist
- Instructor/therapist
- Administrator/therapist
- Instructor/writer
- Craftsman - free-lance, commission, self-employed
- Historical craftsman
- Architect/draftsman
- Architect - self-employed
- Architect - free-lance
- Landscape architect
- Interior designer
- Administrator/planner
- Project or city planner
- Sculptor
- Photographer
- Writer
- Fashion designer
- Fashion specialist
- Fashion writer/editor/critic
- Fashion display specialist
- Buyer, salesperson
- Fashion coordinator
- Designer/illustrator
- Fashion design teacher
- Weaver/designer
- Owner/administrator of weaving & design studio
- Consultant/Coordinator or Buyer for department stores
- Sales representative
- Model-maker for architects
- Medical designer
- Graphic designer
- Corporate designer
- Designer/Art Director
- Graphic Artist
- Illustrator/designer/art director
- Illustrator/designer
- Illustrator for fashion houses
- Illustrator for television
- Illustrator/cartoonist
- Fashion Illustrator
- Industrial designer
- Exhibition designer
- Model maker
- Painter
- Specialist for galleries, museums
- Writer for art-related periodicals
- Designer of stage sets for theater productions
- Designer of toys

Hiring Institutions

- Elementary, secondary, public & private schools
- Colleges
- Recreation Departments
- Service Organizations
- Newspapers, T.V. and Radio Stations
- Community Centers
- Churches
- Hospitals
- Libraries
- Historical Societies
- Architectural Firms
- City, county state planning offices
- Museums
- Fashion and Trade magazines
- Department stores
- Boutiques
- Art galleries
- Fabric houses
- Interior design firms
- Corporations
- Advertising Agencies
- Pattern Companies
- Self Employment
- Recreation equipment manufacturers

College Requirements:

Students are advised to study their specific major in the college of their choice.

Education majors are advised to request a teacher certification guide.

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
ART
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ART 100(Art Survey I)	3
ART 103(Design I)	3
ART 105(Drawing I)	3
ENG 101(English Comp I)	3
HPR+	1
Social Science+	3
TOTAL CREDIT HOURS	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ART 104(Design II)	3
*ART 106(Drawing II)	3
*ENG 102(English Comp II)	3
Social Science[1]+	3
Science/Math+	4
TOTAL CREDIT HOURS	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
Elective[2]	2
ART Elective[3]	3
SPH 101(Fund of Speech)	3
Computer Literacy+	1
Humanities[4]+	3
Science/Math+	4
TOTAL CREDIT HOURS	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
ART Elective[3]	3
ART 101(Art Survey II)	3
HPR+	1
Humanities[4]+	3
Social Science+	3
Science/Math+	3
TOTAL CREDIT HOURS	16

* Prerequisite--see IVCC college catalog.

+ Select from reverse side.

# Education majors should request seperate teacher certification brochure.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Biology can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

BIOLOGY (PRE)

General Description

Biology is the science of living matter. It involves the study of the structure, evolutionary development, and functions of plants, animals, and microorganisms. The majority of biologists are engaged in research and development, and teaching.

Biology majors with a bachelor's degree often obtain beginning jobs which include laboratory testing, technical sales, medical technology, or high school teaching. Graduate training in a specialty such as botany, microbiology, or zoology is generally required for positions in research or administration of research programs, and for college-level teaching.

Career Leads

Biochemist
Biological photographer
Biologist (botanist, ecologist, pharmacologist, zoologist, etc.)
Biomedical engineer
Biophysicist
Chiropractor
Dentist
Dietitian
Editor, science
Environmentalist
Food and sanitary inspector
Forester
Hospital administrator
Laboratory assistant
Lawyer
Medical illustrator
Medical librarian
Medical technologist
Museum technician
Oceanographer
Optometrist
Osteopath
Pharmacist
Physical therapist
Physician
Podiatrist
Psychologist
Public health educator
Salesworker, chemicals/drugs
Soil technologist
Teacher
Veterinarian
Writer: technical scientific

Hiring Institutions

- Colleges, schools, and educational institutions
- Doctor's offices, medical clinics, and laboratories
- Government agencies:
  - Department of Agriculture
  - Department of the Interior
  - Environmental Protection Agency
  - National Institutes of Health
- Hospitals
- Medical/technical libraries
- Museums
- National and state parks
- Professional and technical journals
- Research and development firms
- Zoological/botanical gardens

Employment Outlook

Employment in biological fields is expected to increase faster than average for all occupations through the mid-1990's due to recent advances in genetic research that should result in new drugs, improved plants, and medical discoveries. Efforts to preserve the environment should also result in additional employment opportunities.

Student Interest Code
I-S-R

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
BIOLOGY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
BIO 103 (Principles of Biology)	4
*MTH 200 (Calculus & Analytic Geom I)	5
*CHM 106 (General Chemistry)	5
TOTAL CREDIT HOURS	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or. SPH 101 (Fundamentals of Speech)	3
*CHM 107 (General Chemistry)	5
*ZOO 104 (General Zoology)	4
*MTH 201 (Calculus & Analytic Geom II) or Elective	5
TOTAL CREDIT HOURS	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I)	5
*PHY 203 (General Physics or Elective	5
*BOT 105 (General Botany)	4
Humanities+	3
TOTAL CREDIT HOURS	17

SECOND YEARS - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*PHY 204 (General Physics) or Elective	5
Humanities+	3
HPR+	2
Social Science+	6
TOTAL CREDIT HOURS	16

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

STEPHEN F. BANSBERG, M.D.
Chief Resident, Otolaryngology
Mayo Clinic

"IVCC provided a quality and affordable education in the basic sciences which became the foundation for future studies. IVCC serves as an excellent transition to university life. Instructors are always available when extra help is needed."

SUGGESTED HIGH SCHOOL SUBJECTS:

4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt,econ)
4 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

BUSINESS (PRE)

Two years of a four-year degree program in Business can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Business programs at four-year colleges and universities usually allow students several options in which they may choose a major course of study. The major areas are Accounting, Finance, Management, Marketing, Economics, Information Systems, and International Business.

IVCC Course Outline for Associate In Arts Degree

Business Administration

Students planning to transfer to a four year university in Business should attempt to complete the requirements of the IVCC Associate of Arts Degree. Most four year university schools of Business have certain 'core,' or 'tool course' requirements which a student must complete prior to full admission to their respective schools of Business. A student should therefore attempt to incorporate the 'core' or 'tool' courses into their Associate of Arts degree required by the four-year school of their choice.

The most commonly required 'core' or 'tool' courses are:

1. ACT 101 - Financial Accounting (3.0)
2. ACT 102 - Managerial Accounting (3.0)
3. BUL 200 - Legal Environment of Business (3.0) or BUL 201 - Business Law I (3.0) and BUL 202 - Business Law II (3.0)
4. CSI 101 - Computer Programming (3.0) or CSI 102 - Intro to Business Computer Systems (3.0)
5. ECN 203 - Principles of Economics I - Macro (3.0)
6. ECN 204 - Principles of Economics II - Micro (3.0)
7. ECN 205 - Business Statistics (3.0)
8. MTH 106 - Finite Math (4.0) and/or MTH 107 - Calculus for Business and Social Sciences (4.0)
9. PSY 100 - General Psychology (3.0)
10. SOC 100 - Introduction to Sociology (3.0)

MICHAEL SCHMIDT, Sales Representative
Lettercraft Printers/Creative Services
Peru, Illinois

"I received my associate's degree at IVCC. Upon entering Illinois State University I was more than adequately prepared to continue on to my advanced degree. I believe IVCC ranks as one of the best community colleges in Illinois in preparing students for larger universities.

A separate guide is available for students considering transfer to the University of Illinois--see an IVCC counselor for a copy.

(Continued on Next Page)

(Cont'd.)

Typical IVCC Course Outline for Associate in Arts Degree
in
Business Administration

FIRST YEAR

First Semester	Credit
ENG 101 (English Comp I)	3
SPH 101 (Fund of Speech)	3
Humanities+.	3
*MTH 106 (Finite Math) or MTH 107 (Calculus for Bus/Soc Socience).	4
ECN 203 (Prin of Economics I). .	3
TOTAL CREDIT HOURS	16

FIRST YEAR

Second Semester	Credit
*ENG 102 (English Comp II). . . .	3
Humanities+	3
*MTH 107 (Calculus for Bus/Soc Sci) or MTH 106 (Finite Math)	4
CSI 102 Bus Comp System.	3
*ECN 204 (Prin of Economics II). .	3
TOTAL CREDIT HOURS	16

SECOND YEAR

First Semester	Credit
Business Law (BUL 200 or BUL 201)	3
*ACT 101 (Financial Acctg). . . .	3
HPR+	1
Science/Math+.	4
Humanities+.	3
Social Science+ (PSY 100/SOC 100)	3
TOTAL CREDIT HOURS	17

SECOND YEAR

Second Semester	Credit
*ECN 205 (Business Statistics). .	3
*ACT 102 (Managerial Acctg) . . .	3
Business Law or Elective	3
Humanities+.	3
HPR+	1
Electives.	3
TOTAL CREDIT HOURS	16

AN IVCC FAMILY...(l-r) Barbara, David, Elaine, Richard, Cheryl, and Jerome Puetz can all attest to the value of an IVCC education.

BARBARA LENHAUSEN PUETZ, an early childhood education teacher at Putnam County Elementary School, says IVCC "prepared me properly for the position I now hold."

Her husband, **DAVID PUETZ**, a senior electrician at Commonwealth Edison's LaSalle County Nuclear Power Station, says the college "gave me the education and experience to impress my interviewers..."

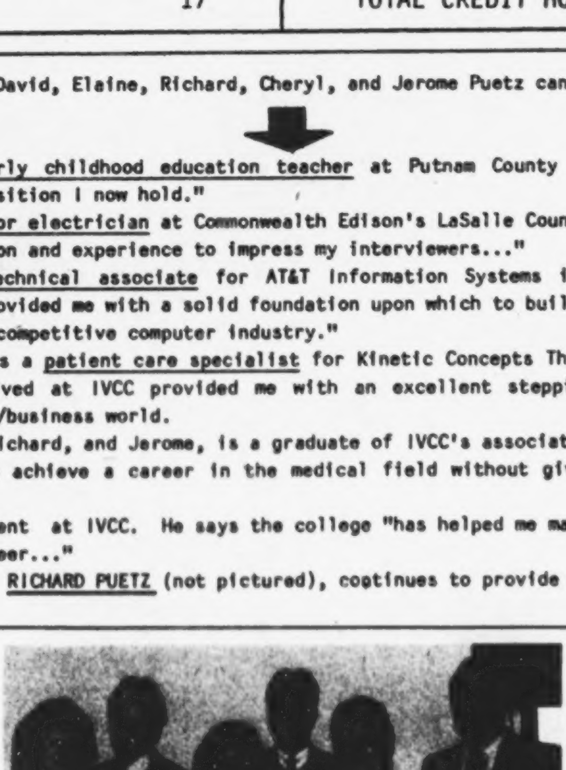
ELAINE SALZ PUETZ, a senior technical associate for AT&T Information Systems in Naperville, says "the data processing curriculum at IVCC provided me with a solid foundation upon which to build the various technical skills needed to succeed in the highly competitive computer industry."

Her husband, **RICHARD PUETZ II**, is a patient care specialist for Kinetic Concepts Therapeutic Services in Lombard. He says "the education I received at IVCC provided me with an excellent stepping stone in my pursuit of a successful career in the medical/business world.

CHERYL PUETZ, mother of David, Richard, and Jerome, is a graduate of IVCC's associate degree nursing program. She says the college "allowed me to achieve a career in the medical field without giving up my status of wife and homemaker."

JEROME PUETZ is a full-time student at IVCC. He says the college "has helped me master the basic learning skills I will need to move toward a career..."

In addition, father and husband, **RICHARD PUETZ** (not pictured), continues to provide quality instruction in science and EMT courses at IVCC.



CHEMISTRY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. Mathematics
1 yr. Chemistry
1 yr. Physics
4 yrs. English
2 yrs. Foreign language
3 yrs. Soc. Studies

Two years of a four-year degree program in Chemistry can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

Chemists study the structure and composition of substances, and the ways in which they are changed and transformed. Their varied activities include the creation of products such as synthetics and vaccines, as well as the application of new knowledge to fields such as nutrition, genetics, and environmental protection.

About three-fourths of all chemists are employed by private industry, and the majority of them are engaged in research and development. Graduates with a bachelor's degree usually find beginning jobs in analysis and testing, sales, or quality control. Graduate training is generally required for positions in research or college teaching.

Career Leads

Biochemist
Chemical engineer
Chemical processing plant supervisor
Chemist (analytical, quality control, research)
Dentist
Dietitian
Editor, science
Environmentalist
Food sanitary inspector
Hospital administrator
Industrial health engineer
Laboratory assistant
Laboratory technician/tester
Manager, industrial organization
Medical illustrator
Medical librarian
Medical technologist
Oceanographer
Patent attorney
Pharmacist
Pharmacologist
Physician
Production manager
Public health educator
Research & development
Salesworker, chemicals/drugs
Teacher
Writer: technical, scientific

Hiring Institutions

Business corporations and industries
Colleges, schools, and educational institutions
Doctor's offices, medical clinics, and laboratories
Engineering firms
Government agencies:
  Department of Agriculture
  Department of Defense
  Department of Health, Education and Welfare
  Department of the Interior
Hospitals
Manufacturing and processing firms
Medical/technical libraries
Mining/petroleum companies
Professional and technical journals
Research and development firms
Utilities companies

Student Interest Code
I-A-R

IVCC COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
CHEMISTRY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 106 (General Chemistry I)	5
ENG 101 (English Comp I)	3
GER 101[2] (Elementary German) or Humanities	3-4
*MTH 200 (Calculus & Analytic Geom I)	5
TOTAL CREDIT HOURS:	16-17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry II)	5
*GER 102 (Elementary German) or Humanities	3-4
*MTH 201 (Calculus & Analytic Geom II)	5
*PHY 109 (General Physics)	4
TOTAL CREDIT HOURS:	16-17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I)	5
*MTH 202 (Calculus & Analytic Geom III)	3
*PHY 200 (General Physics)	4
HPR+	1
Social Science[1]+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II)	5
*ENG 102 (English Comp II) or SPH 101 (Fundamentals of Speech)	3
*PHY 201 (General Physics)	4
HPR+	1
Social Science+	3
TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

LISA HARTSHORN, Research Assistant
Travenol Laboratories
Chemistry Major at Ill. State University

"Most all of my instructors at IVCC were fantastic. Due to the smaller class sizes, I was able to have more contact with my instructors at IVCC than I would have had at a larger university. IVCC had a wide selection of lab equipment available, which was all for student use, giving me hands-on experience on the equipment."

COMMUNICATIONS - JOURNALISM (PRE)

Two years of a four-year degree program in Communications/Journalism can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

SUGGESTED HIGH SCHOOL SUBJECTS:

4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Employment Outlook

Competition is keen for most communications jobs, but jobs will be available through the mid-1990's for talented people. Opportunities will be stronger for those with the appropriate training and experience and for those willing to start with jobs in small towns.

Employment of writers and editors is expected to increase faster than the average for all occupations through the mid-1990's. The best opportunities will be with business and trade publications and in technical writing.

Employment of public relations specialists, broadcast announcers, reporters and correspondents is expected to increase about as fast as the average for all occupations through the mid-1990's. New graduates with some experience, perhaps as interns, will have the best chances.

Employment for photographers is expected to grow more slowly than the average for all occupations through the mid-1990's.

Nature of the Work

Communications (journalism) is a very broad field offering opportunities in public relations, advertising, radio and television announcing and production, reporting and editing, technical writing, and photography. Students with strong backgrounds in reporting, editing and broadcasting may depend heavily on the mass media (newspapers, television, radio, magazines) for job opportunities; but communications specialists are employed by businesses and industries, governments, schools, hospitals, and non-profit organizations--any institution interested in conveying information or opinions to an audience. Some communications areas, particularly writing and photography, are adaptable to part-time and free-lance work.

Training

Most employers prefer college graduates for communications jobs, but requirements vary widely throughout the field. Broadcast station officials evaluate taped auditions in hiring on-the-air personnel; print media officials evaluate a writer's published articles or a photographer's portfolio.

Employers generally prefer a student with a broad education--a strong liberal arts or humanities background or a speciality in a field such as economics, politics, sports, law, science.

College programs are available in a variety of communication areas including public relations, advertising, news-editorial writing, broadcasting, and still and motion photography. These programs are usually administered by a journalism or communications department.

Student Interest Code
A-S-I
A-I-S
A-I-R

COMPUTER SCIENCE (PRE)

Two years of a four-year degree program in Computer Science can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt,econ)
4 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Nature of the Work

Individuals with degrees in computer science usually become programmers or systems analysts. Programmers write computer instructions and translate the instructions into machine readable language. Systems analysts design systems for processing information or solving either business or scientific problems.

Programmers and systems analysts usually work for large firms. Most are employed by manufacturers, banks, insurance companies, data processing service organizations, and government agencies.

The employment outlook for programmers and systems analysts is expected to grow faster than the average for all occupations through the mid-1990's, particularly in programmer applications.

Program Outline

Most students will want to acquire the Associate of Arts degree prior to transferring to a four-year school to major in computer science. While completing the requirements of the Associate of Arts degree the student should select those particular courses required by and transferable to the college or university of their choice.

It should be stressed that different four-year schools have different requirements. Careful attention should be paid to the requirements of the college or university the student wants to attend after IVCC.

STUDENTS ARE ADVISED TO STUDY THEIR SPECIFIC MAJOR IN THE COLLEGE OF THEIR CHOICE.

A typical transfer program emphasizing a Business minor is detailed as follows:

First Semester	Credit	Second Semester	Credit
HPR - Elective	(1)	HPR - Elective	(1)
ECN 203 - Prin Econ I	(3)	MTH 107 Calculus for Bus/Soc Sci	(4)
MTH 106 - Finite Math	(4)	ENG 102 - Composition II	(3)
ENG 101 - Composition I	(3)	CSI 104 - Assembler Language	(5)
SPH 101 - Speech	(3)	CSI 202 - Programming Systems	(4)
Humanities Elective	(3)		(17)
	(17)		

Third Semester	Credit	Fourth Semester	Credit
ECN 204 - Prin Econ II	(3)	CSI 204 - PL/I	(3)
CSI 203 - Adv. Prog. Systems	(5)	HUM - Elective	(6)
ACT 101 - Financial Acct.	(3)	ACT 102 - Managerial Acct.	(3)
Soc. Science - Elective	(3)	Science Elective	(4)
HUM Elective	(3)		(16)
	(17)		

CRIMINAL JUSTICE (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Pre-Criminal Justice can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

Training and Other Qualifications

Personal qualifications such as honesty and an understanding of human nature are important. In addition to educational requirements, most workers in protective and related services must undergo formal training programs and get on-the-job experience before they are fully qualified. Training programs last from several days to a few months and emphasize specific job-related skills.

Nature of the Work

The growth of our Nation's population and economy has put an increasing emphasis on protective services.

Graduates with a bachelor's degree can choose from many career opportunities in the public and private protective services area. These opportunities include such occupations as Correction officers, FBI special agents, Department of Immigration and Naturalization agents, City and County Police Officers, State Police Officers, and many other private and public occupations in the protective services area.

Employment Outlook

Employment opportunities in the Criminal Justice and related areas are expected to be good in the future with opportunities expanding as the population increases and the diversity of our society and ecomony continues.

IVCC Course Outline for Associate in Arts Degree

(with elective courses in)

Criminal Justice

First Semester

		Course Applies To:		
Course No./Name	Cr.	Gen. Ed.	Major	Elective
CRJ 100 - Introduction to Criminal Justice	3		X	
ENG 101 - English Composition I	3	X		
PSY 100 - General Psychology	3	X		
SPH 101 - Fundamentals of Speech	3	X		
Humanities	3	X		
Physical Education and Health	1	X		
	16			

(continued on next page)

Criminal Justice (Pre)
(continued)

Second Semester

Course No./Name	Cr.	Course Applies To: Gen. Ed.	Major	Elective
CRJ 103 - Juvenile Delinquency	3		X	
ENG 102 - English Composition II	3	X		
PSI 100 - American National Government	3	X		
Science - Math	4	X		
Humanities	3	X		
	16			

Third Semester

Course No./Name	Cr.	Gen. Ed.	Major	Elective
CRJ 201 - Criminal Investigation	3		X	
CRJ 203 - Evidence & Criminal Procedures	3		X	
PSI 102 - State and Local Government	3	X		
Science - Math	4	X		
Humanities	3	X		
Physical Education and Health	1	X		
	17			

Fourth Semester

Course No./Name	Cr.	Gen. Ed.	Major	Elective
CRJ 107 - Introduction to Corrections	3		X	
CRJ 202 - Criminal Law	3		X	
SOC 100 - Introduction to Sociology	3	X		
Science - Math	3	X		
Humanities	3	X		
	15			

Sangamon State University and
Southern Illinois University - A capstone program is also available with the A.A.S. Criminal Justice.

STUDENTS ARE ADVISED TO STUDY THEIR SPECIFIC MAJOR IN THE COLLEGE OF THEIR CHOICE.

Student Interest Code
R-S-E

BRAD ACUNCIUS, Sergeant/Fleet Operations
Illinois State Police

"The education that I received at IVCC was instrumental in my advancing to a supervisory position with the Illinois State Police. In comparing the quality of IVCC instruction with other colleges, I found that IVCC was superior and the instructors were more willing to help students."

DENTISTRY (PRE)

Two years of a four-year degree program in Pre-Dentistry can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

JOHN ETZENBACH, D.D.S.
Periodontist
Dentistry major at University of Illinois

"I felt that my edycation at IVCC prepared me well enough for university study. And it was certainly no hindrance in applying to dental school since I was accepted after three years of undergraduate work instead of four. The instructors that I had in the biology and chemistry departments at IVCC were readily available to help and more than willing to help outside the classroom. Many basic classes at the U of I and other universities are taught by teaching assistants who are usually graduate students who have class loads of their own and are not always readily available for assistance."

Nature of the Work

Dentists examine teeth and other tissues of the mouth to diagnose diseases or abnormalities. They take x-rays, fill cavities, straighten teeth, and treat gum diseases. Dentists extract teeth and substitute artificial dentures designed for the individual patient. They also perform corrective surgery of the gums and supporting bones. In addition, they may clean teeth.

Dentists spend most of their time with patients, but may devote some time to laboratory work such as making dentures and inlays. Some dentists also employ dental hygienists to clean patients' teeth and provide instruction for patient self-care.

Most dentists are general practitioners who provide many types of dental care; about 10 percent are specialists.

Training and Other Qualifications

Dental schools require a minimum of two to four years of college level predental education. Four out of five of the students entering dental schools in 1982 had a bachelor's or master's degree. Dental school generally lasts four academic years.

In selecting students, dental schools give considerable weight to college grades. Many state supported dental schools give preference to residents of their states.

In addition, all dental schools participate in a nation-wide testing program, and scores earned on these tests are considered along with information gathered about the applicant through recommendations and interviews. Dentistry requires both manual skills and a high level of diagnostic ability. Dentists should have good visual memory, excellent judgment of space and shape, and a high degree of manual dexterity, as well as scientific ability.

Employment Outlook

Employment of dentists is expected to grow about as fast as the average for all occupations through the mid-1990's. Because of abundant supply of practitioners, the employment situation for dentists is becoming competitive in some areas of the country.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Student Interest Code
I-R-E

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
PRE-DENTISTRY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements of each university.

FIRST YEAR - FIRST SEMESTER COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
*BIO 103 (Prin of Biology)	4
*CHM 106 (General Chemistry)	5
*MTH 105 (Precalculus)	5
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech	3
*CHM 107 (General Chemistry)	5
*ZOO 104 (General Zoology)	4
Computer Literacy+	1
HPR+	1
TOTAL CREDIT HOURS:	14

SECOND YEAR - FIRST SEMESTER COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I)	5
*PHY 203 (General Physics)	5
Humanities+	3
Social Science+	3
TOTAL CREDIT HOURS:	17

SECOND YEAR - SECOND SEMESTER COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II)	5
*PHY 204 (General Physics)	4
Humanities+	3
HPR+	1
Social Science+	3
TOTAL CREDIT HOURS:	17

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

RICHARD L. BERNARDI, Dean
Liberal Arts & Sciences
Rock Valley College
Rockford, Illinois

"I was a classic example of a student who needed small classes with the personal attention a student gets at a community college. The two years I spent at IVCC (LPO '57) allowed me to mature as a person and develop as a student."

SUGGESTED HIGH SCHOOL SUBJECTS:

- 4 yrs. English (including speech)
- 3 yrs. Soc. Studies (history/govt.)
- 3 yrs. Math (including computer usage)
- 3 yrs. Science (emphasis on lab sci.)
- 2 yrs. Foreign language, music, or art

EDUCATION (PRE)

Business Education
Elementary Education
Physical Education
  Men/Women
Secondary Education
Special Education
Speech Therapy
(Many others)

Two years of a four-year degree program in Education can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

DR. ROXANNE SULLIVAN
Assistant Professor
of Psychology
Bellevue College
Bellevue, Nebraska

"IVCC provided a solid academic foundation that facilitated and enhanced my education, even through my doctoral study."

General Description

Education is concerned with methods of instruction which promote human development and learning. Although most graduates begin their careers in education as teachers, nearly half of the five million persons employed in this field are engaged in administration and personnel work, or in supplying technical and supportive services.

Since there is no longer a teacher shortage,. the employment situation has become increasingly competitive in recent years. There is still, however, a considerable demand for teachers in the inner-city and in parochial schools. There are also opportunities in special education, pre-school education, and the teaching of industrial arts and vocational subjects. A steady number of openings are created each year by people who leave or retire from the profession.

Career Leads

Elementary and Secondary School Positions

Athletic Coach
Audiovisual specialist
Dietitian
Guidance counselor
Librarian
Pre-school, elementary teacher
Principal or superintendent
  of schools
Psychologist
Social Worker
Teacher, secondary school
  (commericial subjects, home economics, industrial arts, physical education)
Teacher, special education
  (handicapped, mentally retarded, learning disabilities)
Tutor

College Positions

Administrators: alumni
  secretary, dean, director of admissions, financial aid or student activities, registrar, etc.
Business Manager
Counselor
Librarian
Personnel manager
Placement director
Public relations
Purchasing agent
Teacher

Other

Recreation
  director
Rehabilitation
  counselor
Saleworker, books
Speech
  pathologist/
  audiologist

(Continued on next page)

Hiring Institutions

Adoption and child care agencies
Board of Education
Bookstores
Colleges, schools, and educational institutions
Community organizations:
  (recreation departments, YM-YWCA's. YM-YWHA's, Boy Scouts, Girl Scouts, etc.)
Day care centers and nursery schools
Educational T.V./film companies
Government agencies:
  Department of Health, Education and Welfare
  Department of State:
    Indian reservations, overseas schools for military dependents, Peace Corps
Libraries
Social service agencies
Test development corporations

MARGARET WAGNER MARTINKUS
Teacher of Reading
Princeton High School

"Coming from a small high school (Mendota), IVCC's small class size helped prepare me gradually for a university setting, and because of the availability of prerequisites, I was able to concentrate on my major after leaving IV. I encourage students who are at all unsure or insecure about college to attend IVCC first."

ENGINEERING (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
ENGINEERING
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER COURSE NO./NAME	CREDIT	FIRST YEAR - SECOND SEMESTER COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3	*ENG 102(English Comp II)	3
*CHM 106(General Chemistry I)	5	*CHM 107(General Chemistry II)	5
*MTH 200(Calculus & Analytic Geom I)	5	*MTH 201(Calculus & Analytic Geom II)	5
EGR 100(Engineering Graphics)	4	*PHY 109(General Physics)	4
HPR+	1	HPR+	1
TOTAL CREDIT HOURS:	18	TOTAL CREDIT HOURS:	18

SECOND YEAR - FIRST SEMESTER COURSE NO./NAME	CREDIT	SECOND YEAR - SECOND SEMESTER COURSE NO./NAME	CREDIT
*MTH 202(Calculus & Analytic Geom III)	3	*MTH 207(Differential Equations)	3
*PHY 200(General Physics)	4	*MTH 205(Intro to Numerical Methods & Fortran Programming)	3
*TAM 203(Theoretical & Applied Mech)	5	*PHY 201(General Physics)	4
Social Science +	3	Humanities+	3
Humanities+	3	Social Science+	3
TOTAL CREDIT HOURS:	18	TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

(Continued on Next Page)

ENGINEERING (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
- 4 yrs. English (including speech)
- 3 yrs. Soc. Studies (history/govt,econ)
- 4 yrs. Math (including computer usage)
- 3 yrs. Science (emphasis on lab sci.)
- 2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Engineering can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois Colleges and Universities.

In 1976, more than 1.1 million persons were employed as engineers, the second largest professional occupation, exceeded only by teachers. Most engineers specialize in one of the more than 25 specialties recognized by professional societies. Some of these are: aerospace, agricultural, biomedical, ceramic, chemical, civil, electrical, industrial, mechanical, metallurgical, mining, and petroleum engineering.

Nature of the Work

Engineers apply the theories and principles of science and mathematics to practical technical problems. Often their work is the link between a scientific discovery and its useful application. Engineers design machinery, products, systems, and processes for efficient and economical performance. They develop electric power, water supply, and waste disposal systems to meet the problems of urban living. They design industrial machinery and equipment used to manufacture goods; and heating, air-conditioning, and ventilation equipment for more comfortable living.

In addition to design and development, many engineers work in testing, production, operation, or maintenance. They supervise the operation of production processes, determine the causes of breakdowns, and perform tests on newly manufactured products to ensure that quality standards are maintained. They also estimate the time needed to complete engineering projects and their cost.

Training

A bachelor's degree in engineering is the generally accepted educational requirements for beginning engineering jobs. College graduates trained in one of the natural sciences or mathematics also may qualify for some beginning jobs.

In a typical 4-year curriculum, the first 2 years are spent studying basic sciences-mathematics, physics, chemistry, introductory engineering, and the humanities, social sciences, and English. The last 2 years are devoted, for the most part, to specialized engineering courses.

SUCCESS OF GRADUATES FROM IVCC TO UNIVERISTY OF ILLINOIS

	GRADUATES FROM THE U. OF I. ENGINEERING SCHOOL	
1974-1984 10 years	IVCC G.P.A. 4.193	U. of I. G.P.A. 4.147
	DIFFERENCE 0.046	

The ten (10) year difference between the grade point average (g.p.a.) transferred from IVCC and the grade point average attained at the University of Illinois is .046 or less than five hundreths (.05) of a g.p.a. difference. The engineering department was most complimentary on the graduates they have been receiving from IVCC.

Student Interest Code
I-R-E

ENGLISH (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

General Description

Two years of a four-year degree program in English can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Students of English investigate and practice the skillful use of language to express, evaluate, and evoke human responses to experience and deepen understanding of human nature. They analyze and appreciate the various literary art forms--poetry, drama, prose--both fictional and factual. They also study theories and methods of literary criticism which they then apply to important works by major authors of American, British, and European literary movements.

A bachelor's degree is usually adequate for entry-level jobs in advertising, publishing, journalism, business, industry, and personnel. In addition, the bachelor's level will provide entry into public school teaching. For the professions, such as law or college teaching, advanced degrees are necessary; post-graduate work is also helpful for those who wish to become editors, reviewers, researchers, or indeed writers.

Career Leads

- Administrative officer (federal, state, county, municipal)
- Advertising manager
- Advertising salesworker
- Announcer, T.V./radio
- Archivist
- Bank officer
- Business/management trainee
- Clergy
- Columnist (fashion, political, society, sports)
- Computer programmer
- Copy writer (advertising)
- Critic (books, drama, film)
- Editor (books, magazines, newspapers)
- Insurance agent/broker
- Lawyer
- Librarian
- News editor (radio/T.V.)
- Newspaper reporter
- Personnel Work
- Photographer, news
- Proofreader
- Public relations (promotion, publicity, public information writer)
- Research assistant (documents and records)
- Salesworker, books
- Speech pathologist/audiologist
- Stockbroker
- Teacher
- Travel agent
- Writer: business trade, technical publications
- Writer, free-lance
- Writer: technical, scientific

Hiring Institutions

- Advertising agencies and departments
- Air, bus, and rail lines
- Banks and investment firms
- Bookstores
- Business corporations and industries
- Colleges, schools, and educational institutions
- Department stores
- Film companies
- Government agencies
- Insurance companies
- Libraries
- Magazines, newspapers, and periodicals
- Professional and technical journals
- Public relations firms
- Publishing companies
- Radio/T.V. industry
- Travel agencies

Student Interest Code
A-S-E

FOREIGN LANGUAGES (PRE)

Spanish, German, and French are the Foreign Languages offered by I.V.C.C.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Foreign Languages can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

General Description

Language is the system by which the ideas and feeling of human experience are communicated. The study of a foreign language helps to put our own language and culture into perspective, and thus to understand it better. It also gives us access to foreign people, places, things. The study of foreign languages is broadening: you become, in a sense, a new person in each new language you learn.

A foreign language major is good general liberal arts preparation for professions, for business, and for government. Specific businesses such as travel bureaus and foreign traders seek those with foreign language fluency. With a bachelor's degree one can teach in secondary schools, although college instructors or professional linguists need advanced work beyond the bachelor's.

Career Leads

Audio-visual specialist
Business/management trainee
College/university official
Community organization worker
Computer Programmer
Copy writer (advertising)
Customs officer
Flight correspondent
Foreign service officer
Immigration inspector
Import-export agent
Intelligence specialist
International relations specialist
Interpreter
Lawyer
Librarian
Museum guide or technician
Peace Corps
Public relations
Research assistant (documents and records)
Research/technical advisor (films)
Scientific linguist (philologist, etymologist)
Social/welfare worker
Teacher
Translator
Travel agent
Tour guide
Writer: Business, trade, technical publications
Writer, foreign language newsscripts

Hiring Institutions

Advertising agencies and departments
Air, bus, and rail lines
Banks and investment firms
Business corporations and industries
Film companies
Government agencies:
  Agency for International Development
  Department of Justice
  Department of State
Import-export companies
Libraries
Magazines, newspapers, and periodicals
Museums
Professional and technical journals
Public relations firms
Radio/T.V. industry
Social service agencies
Travel agencies
United Nations

Student Interest Code
S-A-E (Teacher)
A-S-E (Interpreter)

(Continued on Next Page)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
FOREIGN LANGUAGE
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER		FIRST YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3	*ENG 102(English Comp II)	3
Foreign Language^{4} +	4	SPH 101(Fund of Speech)	3
Social Science^{1} +	3	Foreign Language+	4
Science/Math+	4	Social Science+	3
HPR+	1	Science/Math+	4
TOTAL CREDIT HOURS:	15	TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER		SECOND YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
Foreign Language+	4	Foreign Language+	4
Electives^{3}	6	Science/Math+	3
Humanities+	3	HPR+	1
Social Science+	3	Computer Literacy+	1
		Humanities+	3
		Electives^{2}	4
TOTAL CREDIT HOURS:	16	TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

Four IVCC instructors authored the textbook being used in the college's basic reading and writing classes. Pictured are Barb Tuntland and Sam Rogal (standing), and Bob Mueller and Nancy Schmitt.

FORESTRY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Forestry can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Employment Outlook

Employment of foresters and conservationists is expected to grow more slowly than the average for all occupations through the mid-1990's. Employment should continue to grow faster in private industry than in federal and state governments.

RICHARD WHITE
Senior Paleontologist
Amoco Production Company

"The instructors at IVCC are enthusiastic, personable, accessible, and genuinely interested in the development and success of their students. IVCC offers low cost access to quality education that a four year institution can't provide at the general educational level."

Nature of the Work

Forests are a vital natural resource. They can be used repeatedly without being destroyed. If properly managed. Foresters manage, develop, and protect these lands and their resources - timber, water, wildlife, forage, and recreational areas.

Foresters plan and supervise the cutting and planting of trees. They also protect the trees from fire, harmful insects, and disease. Foresters often specialize in one area of work, such as timber management, outdoor recreation, or forest economics.

Nearly two out of five foresters work in private industry, mainly for pulp and paper, lumber logging, and milling companies. About one-fourth work for the Federal government, primarily in the Forest Service of the Department of Agriculture.

Training

A bachelor's degree with a major in forestry is the minimum educational requirement for those desiring professional careers in forestry. However, due to keen job competition and the increasingly complex nature of the work, employers prefer graduates who hold advanced degrees. Certain jobs such as teaching and research require advanced degrees.

Student Interest Code
R-I-S

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
FORESTRY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
BIO 101 (General Biology)	4
ECN 203 (Prin of Economics)	3
*MTH 105 (Precalculus)	5
PE+	1
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*BIO 102 (General Biology)	4
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech)	3
*AGR 201 (Intro to Soil Science)	3
*ECN 204 (Prin of Economics)	3
GEL 108 (Physical Geology)	4
TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 106 (General Chemistry)	5
*PHY 203 (General Physics)	5
Elective+	2
Humanities+	3
Computer Literacy+	1
PE+	1
TOTAL CREDIT HOURS:	17

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry)	5
*PHY 204 (General Physics)	5
Humanities+	3
Social Science+	3
TOTAL CREDIT HOURS:	16

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

JOSEPH BLEULL, Process Engineer
Borg Warner Chemicals
Chemical Engineering Major at Univ. of Ill.

"The preparation I received at IVCC gave me a strong educational foundation to build on at Illinois. Especially good were the math and chemistry areas. The open chemistry lab and the time I spent working there as a lab assistant put me well ahead of other students (at the U of I) who had limited lab time. This experience is still paying off today. I frequently recommend IVCC. The smaller class sizes and increased instructor attention are the major selling points for preparation for a highly competitive university atmosphere."

GEOGRAPHY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Geography can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

Nature of the Work

Geographers study the distribution and location of various characteristics of the earth's surface. Geographers specialize, as a rule. Economic geographers deal with the geographic distribution of an area's economic activities. Political geographers are concerned with the relationship of geography to politics. Physical geographers study the physical characteristics of the earth. Urban geographers study cities and metropolitan areas while regional geographers study the physical, climatic, economic, political, and cultural characteristics of a particular region or area, which may range in size from a river basin to a state, country, or continent, Cartographers design and construct maps and charts. Medical geographers study the effect of the environment on health.

Places of Employment

Well over 10,000 persons worked as geographers in 1986, excluding those teaching in secondary schools.

Colleges and universities employ about three-fifths of all geographers. The Federal Government also is an important employer. Many work in mapping and intelligence, cartography, aerial photograph interpretation, remote sensing, and environmental activities.

Training

The minimum educational requirements for beginning positions in geography in government, industry, or secondary schools usually is a bachelor's degree with a major in the field. Bachelor's degree holders would find it helpful to have training in a specialty such as cartography, aerial photograph or remote sensing data interpretation, statistical analysis, or environmental analysis.

A master's degree usually is the minimum requirement for the position of college instructor, and is important for advancement in business and government.

Employment Outlook

Employment of geographers is expected to grow faster than many occupations. Little growth is anticipated in college and university teaching, the traditional employer of many highly qualified geographers. As a result, many such geographers may seek nonacademic position, especially in environmental sciences.

Student Interest Code
I-R-S

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
GEOGRAPHY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
SPH 101 (Fund of Speech)	3
GEG 101 (Physical Geog I)	4
Humanities+	3
Computer Literacy+	1
Elective+	2
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II)	3
GEG 102 (Physical Geog II)	4
Elective+	5
Humanities+	3
HPR+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
GEG 103 (Cultural Geography	3
GEG 105 (Intro to Astronomy)	4
Electives+	2
Computer Literacy+	1
Science/Math+	3
Humanities+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
GEG 104 (World Regional Geography)	3
Electives+	6
Social Science+	3
Humanities+	3
HPR+	1
TOTAL CREDIT HOURS:	16

*Prequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

ROBERT MARTIN, Intern
Publication Art Division
National Geographic Society
Geography Major at Illinois State University

"When I came to IVCC, I had no idea what I wanted to pursue, and IVCC exposed me to a wide number of fields...Geography was the one I picked. It is a very good choice to go to IVCC because you save alot of money and take the same classes as you would at a four-year school."

GEOLOGY (PRE)

Two years of a four-year degree program in Geology can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Nature of the Work

Geologists and geophysicists study the structure, composition, and history of the earth. By examining surface rocks, drilling to recover rock cores, and seismic prospecting techniques, they determine the types and distribution of rocks beneath the earth's surface. They also identify rocks and minerals, conduct geological surveys, construct maps, and use instruments such as the gravimeter and magnetometer to measure the earth's gravity and magnetic field. Geological research helps to determine the structure and history of the earth and may result in significant advances such as the ability to predict earthquakes. An important application of geological research is locating oil and other minerals.

Besides locating resources and working in laboratories, geologists and geophysicists also advise construction companies and governmental agencies on the suitability of proposed locations for buildings, dams, or highways.

Geologists usually specialize in one or a combination of three general areas--earth materials, earth processes, and earth history.

Places of Employment

More than two-fifths of all geologists work in private industry. Most industrial geologists work for petroleum and gas companies. Geologists also work for mining and quarrying companies.

The Federal Government employs almost 5,600 geologists. Two-thirds work for the Department of the Interior in the U.S. Geological Survey, the Bureau of Mines, and the Bureau of Reclamation.

Colleges and universities employ about 7,000 geologists. Some work for non-profit research institutions and museums.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Training

A bachelor's degree in geology or geophysics is adequate for entry into some geology jobs. An advanced degree is helpful for promotion in most types of work, and is essential for college teaching and many research positions.

Employment Outlook

Employment of geologists and geophysicists is expected to grow about as fast as the average for all occupations through the mid-1990's. Geologists and geophysicists who have knowledge and experience in geophysical oil and gas exploration may experience better employment opportunities than others.

Student Interest Code
I-R-A

(Continued on Next Page)

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COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
GEOLOGY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
GEL 108 (Physical Geology)	4
*CHM 106 (General Chemistry)	5
*MTH 200 (Calculus & Analytic Geom I)	5
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech)	3
*GEL 109 (Historical Geology)	4
*CHM 107 (General Chemistry II)	5
*MTH 201 (Calculus & Analytic Geom II)	5
TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*MTH 202 (Calculus & Analytic Geom III)	3
*PHY 203 (General Physics)	5
Social Science+	3
Humanities+	2
HPR+	1
TOTAL CREDIT HOURS:	15

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*PHY 204 (General Physics)	5
Elective+	2
Social Science+	3
Humanities+	3
HPR+	1
Computer Literacy+	1
TOTAL CREDIT HOURS:	15

*Prerequisites--see IVCC college catalog
+Select from General Education Requirements for Graduation

NEIL KASTOR, Broadcast Meteorologist
WQAD TV
Moline, Illinois

"All of the semester hours of credit I earned at IVCC transferred to Northern Illinois University and applied directly to my bachelor of science in meteorology. Not only did all of my course work transfer...but some of the textbooks used at NIU were identical to those used at Illinois Valley."

HISTORY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in History can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

History is a narrative account of the political, social, and cultural events and achievements of mankind. Historians evaluate and analyze documents and records relating to the deeds and aspirations of past generations, and use this knowledge to understand and interpret the present.

A bachelor's degree is usually sufficient for entry jobs in government service, communications, banking, finance, and sales. An advanced degree is necessary to consider oneself a professional historian and to obtain jobs in college teaching, research, or archival work.

Career Leads

Administrative officer (federal, state, county, municipal)
Archeological assistant
Archivist
Bank officer
Business/management trainee
Chamber of Commerce executive
Customs officer
Director, state historical society
Editor/journalist
Election procedures advisor
Foreign service officer
Historian
Insurance agent/broker
Intelligence specialist
Lawyer
Librarian
Museum guide or technician
Park superintendent (government)
Public relations
Research assistant (documents and records)
Research/technical advisor (films)
Social/welfare worker
Supervisor of historic sites
Teacher
Tour guide
Travel agent
Writer, free-lance

Hiring Institutions

Air, bus, and rail lines
Archives
Banks and investment firms
Business corporations and industries
Chamber of Commerce
Colleges, schools, and educational institutions
Film companies
Foundations and non-profit organizations
Government agencies:
  National Archives
  Department of Defense
  Department of the Interior
  Department of State
Historical societies
Insurance Companies
Libraries
Magazines, newspapers and periodicals
Museums
National and state parks
Publishing companies
Public relations firms
Radio/T.V. industry
Travel agencies
Social service agencies

Student Interest Code
S-E-I

HISTORY (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
HISTORY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

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FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3
HIS 100(History of Western Civ I)	3
Humanities+	3
Science/Math+	4
Elective[1]	3
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102(English Comp II)	3
HIS 101(History of Western Civ II)	3
SPH 101(Fund of Speech)	3
Science/Math+	4
Humanities+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
HIS 200(US History to 1865)	3
Social Science+	3
Science/Math+	3
Elective	6
HPR+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
HIS 201(US History from 1865)	3
Humanities+	3
Electives[1]	8
Computer Literacy+	1
HPR+	1
TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

HOME ECONOMICS (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
HOME ECONOMICS
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3
HOM 100(Intro to Nutrition)	3
Science/Math+	4
Social Science[1]+	3
Humanities+	3
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102(English Comp II)	3
HOM 101(Food Preparation)	3
SPH 101(Fund of Speech)	3
Science/Math+	4
Humanities+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
HOM 104(Beginning Clothing)	3
Science/Math+	3
Social Science+	3
HPR+	1
Elective[2]	2
Computer Literacy+	1
Humanities+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*HOM 105(Clothing Construction)	3
Electives[3]	6
Humanities+	3
HPR+	1
Social Science+	3
TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

(Continued on Next Page)

HOME ECONOMICS (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Home Economics can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

Employment Opportunities

Most home economists teach. Those in high schools teach about foods and nutrition; clothing selection, construction and care; child development; consumer education; housing and home furnishings; family relations; and other subjects related to family living and homemaking.

Federal, State, and local governments and private agencies employ home economists in social welfare programs to advise and counsel clients on the practical knowledge and skills needed for effective everyday family living.

Nature of the Work

Home economists work to improve products, services, and practices that affect the comfort and well-being of the family. Some specialize in specific areas, such as consumer economics, housing, home management, home furnishings, and equipment, food and nutrition, clothing and textiles, and child development and family relations.

Education

About 350 colleges and universities offer a bachelor's degree in home economics, which qualifies graduates for most entry positions in the field.

Home economics majors study sciences and liberal arts - particularly social sciences - as well as specialized home economics courses. They may concentrate in a particular area of home economics or in what is called general home economics.

Employment Outlook

Home economists, especially those wishing to teach in high schools, will face keen competition for jobs through the mid-1980's. Other areas of home economics also will experience competitive job market conditions as those unable to find teaching jobs look for other positions. However, for those willing to continue their education toward an advanced degree, employment prospects in college and university teaching are expected to be good.

Student Interest Code
S-A-E

(Continued on Next Page)

LAW (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a Pre-Law degree program can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

Nature of the Work

Lawyers perform a wide variety of tasks, but certain basic activities are common to nearly every attorney's work. Probably the most fundamental of all is interpretation of the law. In order to interpret the law knowledgeably, lawyers do research. They must stay abreast of their field, in both legal and nonlegal matters. Usually a lawyer's work also involves contact with people. Attorneys consult with their clients to determine the details of their specific problems, advise them of the law, and suggest actions that might or must be taken.

Training and Other Qualifications

In order to practice law in the courts of any State, a person must be admitted to its bar. To qualify for the bar examination in most States, an applicant must have completed 3 years of college and have graduated from a law school approved by the American Bar Association (ABA) or the proper State authorities. (ABA approval signifies that the law school meets the minimum standards necessary to allow its graduates to take the bar exam and practice law in any State.) The required college and law school education usually takes 7 years of full-time study after high school - years of undergraduate study followed by 3 years in law school. Although a number of law schools accept students after 3 years of college, an increasing number require applicants to have a bachelor's degree. Competition for admission to law school has become intense in the last few years. Acceptance by most law schools depends on the applicant's ability to demonstrate an aptitude for the study of law, usually through good grades and the Law School Admission Test (LSAT), adminstered by the Educational Testing Service.

Employment Outlook

A rapid increase in the number of law school graduates has created keen competition for the available jobs. In the years ahead, the number of graduates is expected to increase further and intensify this competition.

Student Interest Code
E-S-A

MATHEMATICS (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
4 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Mathematics can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

Mathematics study concepts and theories used to solve problems involving quantitative relationships. Those engaged in research to discover new theories or to increase basic knowledge are classified as theoretical mathematicians. Those who develop techniques and approaches to solve problems in the physical and social sciences, or in business and industry, are classified as applied mathematicians.

Students with a bachelor's degree in mathematics can find beginning jobs in the fields of physics, engineering, space technology, economics, business management, statistics, medical research, environmental sciences, math education, and other fields, but they will need advanced degrees to secure more reponsible positions. A bachelor's degree in mathematics will provide an excellent background for advanced study in computer science.

ROY WOJCIECHOWSKI, Engineer
IBM
Electrical Engineering Major at Univ. of Ill.

"I was adequately prepared at IVCC for my work at the University. I was well prepared in basic mathematics and the sciences. I would recommend IVCC. The small class sizes and access to the instructors is an advantage compared to the instruction for the first two years at a large university."

Career Leads

- Accountant
- Actuary
- Air traffic controller
- Architect
- Budget/management analyst
- Business/management trainee
- Cartographer
- Computer programmer
- Cryptographer
- Draftsman
- Efficiency engineer
- Financial/investment analyst
- Financial planner
- Insurance agent/broker
- Internal Revenue agent
- Lawyer
- Market research analyst
- Mathematical technician
- Mathematician (applied, research)
- Meteorologist
- Navigator
- Operations research analyst
- Pilot, airplane
- Psychometrician
- Quality control analyst
- Salary and wage administrator
- Securities trader (banking)
- Statistician
- Stockbroker
- Surveyor
- Systems analyst
- Teacher
- Technical illustrator

Hiring Institutions

- Banks and investment firms
- Business corporations and industries
- Colleges, schools, and educational institutions
- Engineering firms
- Government agencies:
- Department of Defense
- Insurance companies
- Market research departments and firms
- Professional and technical journals
- Research and development firms
- Test development corporations
- Utilities companies

Student Interest Code
I-R-A

MEDICAL TECHNOLOGY (PRE)

Nature of the Work

Laboratory tests play an important part in the detection, diagnosis, and treatment of many diseases. Medical laboratory workers, often called clinical laboratory workers, include three levels: medical technologists, technicians, and assistants. They perform tests under the general direction of pathologists (physicians who diagnose the causes and nature of disease) and other physicians, or scientists who specialize in clinical chemistry, microbiology, or the other biological sciences.

Medical technologists, who require four years of postsecondary training, perform complicated chemical, microscopic, and bacteriological tests.

Technologists in small laboratories often perform many types of tests. Those in large laboratories usually specialize in areas such as microbiology, parasitology, biochemistry, blood banking, hematology (the study of blood cells), and nuclear medical technology (the use of radioactive isotopes to help detect diseases).

Most medical technologists conduct tests related to the examination and treatment of patients and are called on to display independent judgment. Some do research, develop laboratory techniques, teach, or perform administrative duties.

Two years of a four-year degree program in Medical Technology can be completed at IVCC for some transfer schools.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Training

The requirement for a beginning job as a medical technologist is a bachelor's degree with a major in medical technology. The course of study includes courses in chemistry, biological sciences, microbiology, and mathematics, plus one year of practical experience in laboratory work. These programs are offered by colleges and universities as well as by hospitals.

Employment Outlook

Employment of clinical laboratory workers is expected to grow faster than the average for all occupations through the mid-1990's. Rapid growth in employment is expected because of the importance of laboratory tests for medical diagnosis and treatment.

Student Interest Code
I-S-A

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
MEDICAL TECHNOLOGY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
BIO 103 (Prin of Biology). . . .	4
*CHM 106 (General Chemistry) . .	5
ENG 101 (English Comp I)	3
*MTH 103 (College Algebra) . . .	3
HPR+	1
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry). .	5
*ENG 102 (English Comp II). . .	3
*MTH 104 (Trigonometry)	2
*ZOO 104 (General Zoology). . .	4
Social Science+	3
TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I) .	5
*PSY 203 (General Physics) . . .	5
Humanities+.	3
Social Sciences+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II)	5
*PHY 204 (General Physics). . .	5
Humanities+	3
HPR+.	1
Computer Literacy+.	1
TOTAL CREDIT HOURS:	15

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

CHET WASILEWSKI, Vice President
Engineering
Pantrol, Inc.

"I feel that IVCC is one of the finest community colleges in the state. The instructors are well-qualified and well versed in their subject matter. Since class sizes are usually smaller than that of a four-year university, instruction is more personal and helpful. IVCC's labs are better equipped than that of the four-year university I transferred to. IVCC has...an excellent electronics program...the latest high tech training equipment...and an atmosphere that is conducive to learning."

MEDICINE (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year Pre-Medicine program can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Nature of the Work

Physicians perform medical examinations, diagnose diseases, and treat people who are suffering from injury or disease. They also try to prevent illness by advising patients on self-care related to diet and exercise. Physicians generally examine and treat patients in their own offices and in hospitals, but they also may visit patients at home.

About 15% of M.D.'s are general practitioners, while 85% are specialists. The largest specialties are internal medicine, general surgery, obstetrics, and gynecology, psychiatry, pediatrics, radiology, anesthesiology, ophthalmology, pathology, and orthopedic surgery. The most rapidly growing specialties are in the primary care area - family practice, internal medicine, and pediatrics.

Training and Other Qualifications

All states, the District of Columbia, and Puerto Rico require a license to practice medicine. Requirements for licensure include graduation from an accredited medical school, successful completion of a licensing examination, and, in most states, a period of one or two years in an accredited graduate medical education program (residency). The licensing examination taken by most graduates of U.S. medical schools is the National Board of Medical Examiners (NBME) test.

The minimum educational requirement for entry to a medical school is three years of college; some schools require four years. A few medical schools allow selected students who have exceptional qualifications to begin their professional study after two years of college. Most students who enter medical schools have a bachelor's degree.

Required premedical study includes undergraduate work in English, physics, biology, and inorganic and organic chemistry. Students should take courses in the humanities, mathematics, and the social sciences to acquire a broad general education.

Employment Outlook

Job opportunities for physicians through the mid-1990's will reflect faster than average employment growth. Supply and demand are projected to be roughly in balance through the mid-1990's. Foreign trained physicians (including U.S. citizens who completed their training abroad) currently account for approximately one-sixth of all newly licensed physicians and one-fifth of all M.D.'s in practice. The Bureau of Health Professions anticipates the supply of foreign trained physicians to grow more slowly through the mid-1990's than in the past. Of new physicians who enter practice each year through 1995, approximately one in ten will be a foreign medical graduate.

Student Interest Code
I-S-A

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE for students planning to major in PRE-MEDICINE at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
*BIO 103 (Prin of Biology)	4
*CHM 106 (General Chemistry)	5
*MTH 200 (Calculus & Analytic Geom I)	5
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech)	3
*CHM 107 (General Chemistry)	5
*MTH 201 (Calculus & Analytic Geom II) or Ele	5
*ZOO 104 (General Zoology)	4
TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I)	5
*PSY 203 (General Physics) or Ele	5
Humanities+	3
Social Science+	3
HPR+	1
TOTAL CREDIT HOURS:	17

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II)	5
*PSY 204 (General Physics) or Ele	5
Humanities+	3
Social Science+	3
HPR+	1
TOTAL CREDIT HOURS:	17

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

THOMAS CURRY, M.D.
Physician and Surgeon
Natural Science Major at St. John's University-Minnesota
Medical School at University of Illinois

"IVCC instructors are all very personable and approachable, and more than willing to spend extra time with students. The lab courses and equipment were excellent."

RICARDO CALDERON
Senior Medical Student
Loyola-Stritch School of Medicine

"...overall, an excellent collection of teachers. They started the process of making me 'think on my feet' and to have confidence in my ability to think through a problem. Just as importantly, though, they were very approachable and willing to discuss a wide range of topics. They offered non-judgmental advice to me about schools to apply to and possible career choices. They are a very supportive staff."

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

MUSIC (PRE)

Two years of a four-year degree program in Music can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universties.

The important role that music plays in most people's lives makes it difficult to imagine a world without musicians. Professional musicians are those whose livelihoods depend upon performing for the enjoyment of others. As a rule, musicians specialize in either popular or classical music; only a few play both types professionally.

In addition to performing, musicians can teach instrumental and vocal music in schools and colleges, or give private lessons in their own studios or in pupils' homes. Others combine careers as performers with work as arrangers and composers.

Places of Employment

About 135,000 persons worked as performing musicians in 1984. Thousands more taught in elementary and secondary schools and in colleges and universities. Numerous communities have orchestras and dance bands which offer at least part-time work. The various branches of the Armed Forces also offer career opportunities in a variety of musical organizations. Music consists of five areas: 1) the creative careers--song-writer, musician, conductor/director, group member or leader, singer, instrumentalist, musical producer, etc.; 2) trade magazines, critics, and disc jockeys; 3) the business careers--publisher, manager, agent, sales, librarian, advertising and public relations; 4) education--private and public, elementary through universities; and 5) music therapy--hospital, private and clinic.

Training and Other Qualifications

People who become professional musicians begin study at an early age. To acquire technical skill, a thorough knowledge of music, and the ability to interpret music, young people need intensive training through private study with an accomplished musician, in a college or university which has a stong music program, or in a conservatory of music.

Employment Outlook

The non-traditional fields of music will continue to grow as fields such as electronic and video music continue to expand. The growth of schools for the commentary careers has grown in proportion to the number of radio stations, which has expanded from 2500 in 1950 to more than 7200 today. To work in these lucrative, rarefied, highly competitve areas, students do need substantial formal musical training. The record industry is growing, with programs adapted to meet its needs in several colleges. New stature has been given to Advertising/Promotion/Publicity in today's music. It is a rapidly expanding field. Job opportunities in education are expanding.

Musicians who play popular music must understand a feeling for that style of music, but classical training may expand their employment opportunities.

Young persons who consider careers in music should have musical talent, versatility, creative ability, poise and stage presence to face large audiences. Since quality of performance requires constant study and practice, self-discipline is vital.

Student Interest Code
A-S-I

(Continued on Next Page)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
MUSIC
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3
MUS 100(Intro to & History of Music)	3
*MUS 106(Music Theory I)	4
*MUP 201(Instrumental) or MUP 202(Vocal)	1
Science/Math+	3
Social Science[1]+	3
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102(English Comp II)	3
SPH 101(Fund of Speech)	3
*MUS 107(Music Theory II)	4
*MUP 201(Instrumental)or MUP202(Vocal)	1
Humanities+	3
Social Science+	3
TOTAL CREDIT HOURS:	17

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*MUS 206(Music Theory III)	4
Humanities+	3
Science/Math+	4
Social Science+	3
*MUP 201(Instrumental) or MUP 202(Vocal)	1
HPR+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*MUS 207(Music Theory IV)	4
Humanities+	3
Science/Math+	4
*MUP 201(Instrumental)or MUP202(Vocal)	1
HPR+	1
Computer Literacy+	1
TOTAL CREDIT HOURS:	14

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

NURSING (PRE)

Two years of a four-year degree program in Nursing can be completed at IVCC for some schools.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Baccalaureate Training

A license is required to practice professional nursing in all states and in the District of Columbia. To get a license, a nurse must be a graduate of a school of nursing approved by the state board of nursing and pass a written state competency examination. Nurses may be licensed in more than one state, either by examination or endorsement of a license issued by another state.

A minimum of a baccaluareate degree is preferred for those who aspire to administrative or management positions, and those planning to work in research, consultation, teaching, or clinical specialization, which require education at the master's level. Graduation from high school or GED completion is required for admission to all schools of nursing.

Nursing plays a major role in health care. As important members of the health care team, registered nurses perform a wide variety of functions. They observe, evaluate, and record symptoms, reactions, and progress of patients, instruct patients and family members in proper health maintenance care, and help maintain a physical and emotional environment that promotes wellness.

Employment Outlook

The many changes in technology and the health care delivery system have made for many and varied opportunities in the nursing profession. Hospitals, clinics, home health agencies, long-term care facilities, and nursing homes are some of the areas open to registered nurses.

In the immediate area, employment for nurses is competitive. Employment for nurses in areas throughout the country varies greatly.

NOREEN HOOVER KOSTELECKY, Head Nurse
Chronic Hemodialysis Unit
St. Francis Medical Center, based at St. Margaret's Hospital, Spring Valley, Illinois

"IVCC instilled in me the high standards by which I practice nursing today, and motivated me to further my education and...advance my career. IVCC provided courses that were easily transferred and prepared me for the academic demands of a university."

BECKY WOLFER, Medical Student
Washington University School of Medicine
St. Louis

"I feel that the courses I took at IVCC prepared me well for my advanced coursework at the University of Illinois, as well as medical school. IVCC is an excellent institution where I was able to take good courses in my major...The faculty is both excellent and caring."

Student Interest Code
S-I-A

(Continued on Next Page)

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COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
NURSING
at a 4-year university

IT IS THE STUDENTS'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfser university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I).	3
BIO 101 (General Biology)	4
PSY 100 (General Psychology). . .	3
Elective+	5
HPR+.	1
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech). . .	3
*BIO 102 (General Biology) . . .	4
SOC 100 (Intro to Sociology) . .	3
HPR+	1
Elective+.	5
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 106 (General Chemistry). . .	5
*BOT 109 (Microbiology)	3
Humanities+	3
Science/Math+	3
Computer Literacy+.	1
Elective+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry II).	5
Humanities+.	3
Social Science+.	3
Electives+	5
TOTAL CREDIT HOURS:	16

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

MARY JO MENENDEZ, General Manager
Village Pub Restaurant
Breckenridge, Colorado
University of Illinois Graduate
Winner of University of Illinois' Donald W. Doerscher Award for work in philosophy

"My experience at IVCC taught me to have the initiative to look for opportunities, the courage to believe in myself, and the humility and sense to gratefully accept the help that was offered."

PHARMACY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a Pre-Pharmacy degree can be completed at IVCC for most schools.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universities.

Nature of the Work

Pharmacists dispense drugs and medicines prescribed by medical and dental practitioners and supply and advise people on the use of many medicines that can be obtained with and without prescriptions. Pharmacists must understand the use, composition, and effect of drugs and often test them for purity and strength.

Many pharmacists employed in community pharmacies also have duties. Besides dispensing medicines, some pharmacists buy and sell nonpharmaceutical merchandise, hire and supervise personnel, and oversee the general operation of the pharmacy.

Pharmacists in hospitals and clinics dispense prescriptions and advise the medical staff on the selection and effects of drugs; they also make sterile solutions, buy medical supplies, teach in schools of nursing and allied health professions, and perform administrative duties.

Training

A license to practice pharmacy is required in all states and the District of Columbia. To obtain a license, one must be a graduate of an accredited pharmacy college, pass a state board examination and - in nearly all states - have a specified amount of practical experience or internship under the supervision of a registered pharmacist.

At least five years of study beyond high school are required to graduate from one of the degree programs accredited by the American Council on Pharmaceutical Education in the 72 colleges of pharmacy. Most graduates receive a Bachelor of Science (B.S.) or a Bachelor of Pharmacy (B. Pharm.) degree.

Admission requirements vary. A few colleges admit students directly from high school. Most colleges of pharmacy, however, require entrants to have completed one or two years of prepharmacy education in an accredited junior college, college, or university.

The bachelor's degree in pharmacy is the minimum educational qualification for most positions in the profession.

Employment Outlook

Employment of pharmacists is expected to grow about as fast as the average for all occupations through the mid-1990's. Employment is expected to rise more rapidly in hospitals than in community pharmacies. In some localities, particularly large metropolitan areas, there appears to be imbalances leading to intensified competition, a situation that may continue.

Student Interest Code
I-E-S

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
PRE-PHARMACY
University of Illinois Chicago

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I).	3
BIO 101 (General Biology)	4
*CHM 106 (General Chemistry). . .	5
*MTH 200 (Calculus & Analytic Geom I).	5
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II). . .	3
SPH 101 (Fund of Speech). . . .	3
*CHM 107 (General Chemistry). .	5
*BIO 102 (General Biology). . .	4
PSC 100 or GEG 105 or GEG 107 .	3-4
TOTAL CREDIT HOURS:	18-19

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I). .	5
ZOO 107 (Anatomy & Physiology I).	4
SPH 202 (Intro to Theatre) or ART 100 (Art Survey I) or ART 101 (Art Survey II) or MUS 100 (Intro to & History of Music)	3
ECN 203 (Prin of Economics I). .	3
*BOT 109 (Microbiology)	4
TOTAL CREDIT HOURS:	19

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II).	5
*ZOO 108 (Anatomy & Physiology II)	4
HIS 100 (Western Civ to 1865) or HIS 101 (Western Civ from 1865)	3
PSY 100 (Gen Psych) or SOC 100 (Intro to Sociology).	3
HPR+	2
TOTAL CREDIT HOURS:	17

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

RICH LYONS, Pharmacist
Walgreens
Pharmacy Major at University of Iowa

"My preparation at IVCC left a strong basis on which to build when I attended the University of Iowa. I would strongly recommend IVCC to someone entering pharmacy school... The lab work that was done at IVCC more than adequately prepared me for the extensive lab work that was required in pharmacy school."

MARY ZIBERT, Chemistry Student
Illinois State University
(Received a one-year cooperative education position with the Pharmaceutical Division of the Eastman Kodak Company)

"By attending Illinois Valley Community College, I was able to interact with instructors on an individual basis. This was important in developing new skills which became a foundation for further education and which are also applicable in a work environment. The community college experience provided a gradual transition toward a large university atmosphere."

PHYSICAL EDUCATION (PRE)

Two years of a four-year degree program in Physical Education can be completed at IVCC for most schools.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

General Description

Both physical and social skills are important when working in the area of physical education. It involves working closely with individuals with the hopes of improving their well-being. People working in this area need to have good communication skills, as well as skills in the area of movement. In many cases, the work day can be very long, and it is not unusual to have to work both at night and on weekends.

Employment Outlook

The field of physical education is rapidly expanding, and it is important to start career planning as early as possible. Careers in physical education related fields are expanding significantly with the current recognition of the importance of fitness and total well-being. The area now includes many options beyond teaching and coaching. Career opportunities continue to expand for those with baccalaureate degrees in physical education who are willing to work outside the field of education.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Training

The minimum requirement would be a bachelor's degree in physical education. Those interested in teaching must also obtain teacher certification. A master's degree may be required, especially in some areas of education. Students are encouraged to take courses in English, communications, physical education, health, biology, physics, and math.

Careers

Sports Medicine
Physical Therapy
Youth Clubs and Y's
Health Clubs & Spas
Industrial Fitness
Coaching
Teaching
Adapted Physical Education
Lifestyle Modification Programs
Cardiac Rehabilitation
Exercise Physiology
Athletic Training
Occupational Therapy
Human Movement
Sports Communication
Fitness Leadership
Sports Business
Exercise Testing Technology
Sports Nutrition
Choreographer
Dancer
Camp Director
Recreaction Leader
Intramural Director
Athletic Director
Golf Club Manager
Professional Athlete
Recreation Center Director
Biomechanics
Sports Psychology
Sports Management
Sports Promotion/Information Director Sports Organizations

CHRISTOPHER DUSTON
Senior Experimental Engineer
United Technologies Optical Systems
Univ. of Illinois Graduate, Ceramic Engineer

"It was at IVCC that I discovered Ceramic Engineering. IVCC lab equipment is the modern type used in industry."

(Continued on Next Page)

Student Interest Code
S-R-E

(Cont'd.)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
PHYSICAL EDUCATION
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I)	3
HPR 104 (First Aid)	2
HPR 200 (Professional Orientation)	2
PEP 101 (Badminton)	1
PEP 103 (Tennis)	1
ZOO 107 (Anatomy/Physiology I)	4
Humanities+	3
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II)	3
PEP 203 (Volleyball)	1
PEP 204 (Softball)	1
PSY 100 (General Psychology)	3
*ZOO 108 (Anatomy/Physiology II)	4
Humanities +	3
Computer Literacy+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
SPH 101 (Fund of Speech)	3
HPR 208 (PE Activities for Elementary School Children)	2
Humanities+	3
Science/Math+	3
Social Science+	3
Elective	3
TOTAL CREDIT HOURS:	17

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
HPR 103 (Personal/Community Hygiene)	2
PEP 102 (Golf)	1
Elective	6
Humanities+	3
Social Science+	3
TOTAL CREDIT HOURS:	15

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements

CHRISTINE VEGA, Flight Attendant
American Airlines

"IVCC provided me with a solid educational base. Since IVCC is close to home, it saved me the expense of going away to school, and it gave me the time to decide what I really wanted to do."

PHYSICAL THERAPY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Physical Therapy can be completed at IVCC for most schools.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

Training and Other Qualifications

All states require a license to practice physical therapy. Applicants for a license must have a degree or certificate from an accredited physical therapy educational program and to qualify must pass a state board examination.

The physical therapy curriculum includes science courses such as anatomy, physiology, neuroanatomy, and neurophysiology; it also includes specialized courses such as biomechanics of motion, human growth and development, and manifestations of disease and trauma.

Competition for entry to all physical therapy programs is keen. Institutions offering a physical therapy program each year receive many more applications than the number of existing places.

Many persons who want to determine whether they have the personal qualities needed for this occupation volunteer for summer or part-time work in the physical therapy deparment of a hospital or clinic.

Nature of the Work

Physical therapists plan and administer treatment in order to restore bodily functions, relieve pain, and prevent or limit permanent disability to those suffering from a disabling injury or disease. Their patients include accident victims, handicapped children, and stroke victims. Physical therapy also is used in the treatment of multiple sclerosis, cerebral palsy, nerve injuries, amputations, fractures, and arthritis.

Places of Employment

About two out of five jobs for physical therapists are in hospitals. Other locations of employment are in nursing homes, rehabilitation centers, schools and residential facilities for handicapped children, home health agencies, outpatient clinics, and physicians' offices.

Employment Outlook

Employment is expected to grow much faster than the average for all occupations through the mid-1990's. Most new positions will result from the expansion of programs for the aging - a need that will increase sharply.

Student Interest Code
S-I-R

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in
PRE-PHYSICAL THERAPY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
BIO 103 (Prin of Biology). . . .	4
ENG 101 (English Comp I)	3
*MTH 105 (Precalculus)	5
Social Science+	3
PE+.	1
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech). . .	3
*ZOO 104 (General Zoology). . .	4
Elective+	3
Social Science+	3
Humanities+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 106 (General Chemistry) . .	5
*PHY 203 (General Physics) . . .	5
Elective+	4
Computer Literacy+	1
PE+.	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry) . .	5
*PHY 204 (General Physics) . . .	5
Elective+	3
Humanities+.	3
TOTAL CREDIT HOURS:	16

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

JON BERNARDI, Manufacturing Manager
B. F. Goodrich
Chemical Engineering Major at Univ. of Ill.

"The curriculum at IVCC did an excellent job in preparing me for the U of I. The math and science at IVCC were outstanding. The instructors at IVCC know their subjects... and, more importantly, they get to know the students. The personal attention was great."

POLITICAL SCIENCE (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Political Science can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

Political scientists study the manner in which people organize, administer, and operate their governing institutions. They investigate issues concerning international relations, the uses of power, and the rights and privileges of citizens. They also develop theories about political processes.

Students with a bachelor's degree find employment as business trainees, personnel assistants, and as investigators or research workers in government and industry. Graduate degrees are generally required for research, college teaching, or high level administrative positions in this field.

Career Leads

Administrative officer (federal, state, county, municipal)
Anthropologist
Archivist
Chamber of Commerce executive
Customs officer
Editor/journalist
Elections procedures advisor
Foreign correspondent
Foreign service officer
Import-export agent
Intelligence specialist
International relations specialist
Labor relations specialist
Lawyer
Market research analyst
Police officer
Political scientist
Probation/parole officer
Public relations
Public survey interviewer
Real Estate agent/broker
Research assistant (documents & records)
Social/welfare worker
Special agent (F.B.I.)
Teacher
Tour guide
Urban planner
Writer: business, trade, technical publications

Hiring Institutions

Archives
Business corporations and industries
Chambers of Commerce
Colleges, schools, and educational institutions
Courts and correctional institutions
Government agencies:
  Agency for Internal Development
  Department of State
  Information Agency
Historical societies
Import-export companies
Labor unions
Libraries
Magazines, newspapers, and periodicals
Market research departments and firms
Professional and technical journals
Public relations firms
Radio/T.V. industry
Regional planning councils and associations
Travel agencies
Social service agencies

Student Interest Code
S-I-A

Continued on Next Page

POLITICAL SCIENCE (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
POLITICAL SCIENCE
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER		FIRST YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3	*ENG 102(English Comp II)	3
PSI 100(American Nat'l Government)	3	PSI 200(International Relations)	3
Science/Math+	4	SPH 101(Fundamentals of Speech)	3
Humanities+	3	Science/Math+	4
Elective[1]	3	Humanities+	3
TOTAL CREDIT HOURS:	16	TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER		SECOND YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
Electives[1]	3	Humanities+	3
Humanities+	3	Electives[1,2]	11
Social Science+	3	Computer Literacy+	1
Science/Math+	3	HPR+	1
HPR+	1		
POL 102 State/Local Govt.	3		
TOTAL CREDIT HOURS:	16	TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

PSYCHOLOGY (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
PSYCHOLOGY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER		FIRST YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3	*ENG 102(English Comp II)	3
Humanities+	3	*MTH 104(Trigonometry)	2
PSY 100(General Psychology)	3	HPR+	1
*MTH 103(College Algebra)	3	Lab Science/Sequence+	4
Lab Science/Sequence+	4	Electives[2]	3
		Humanities+	3
TOTAL CREDIT HOURS:	16	TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER		SECOND YEAR - SECOND SEMESTER	
COURSE NO./NAME	CREDIT	COURSE NO./NAME	CREDIT
Electives[3]	6	*PSY 200(Personality & Adjustment)	3
HPR+	1	Humanities+	3
SPH 101 (Fund of Speech)	3	Computer Literacy+	1
Humanities+	3	Electives[2]	6
PSY 205(Human Sexuality)	3	Social Science+[1]	3
TOTAL CREDIT HOURS:	16	TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

Continued on Next Page

PSYCHOLOGY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a four-year degree program in Psychology can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

Psychologists study the behavior of individuals in order to understand and explain their actions. They learn about the traits and interests of people through interviews, tests and controlled experiments, and help them achieve satisfactory personal adjustments. Some of the branches of specialization in this field are clinical, social, counseling, developmental, experimental, educational, physiological, personality, and industrial psychology. Persons with a bachelor's degree may find beginning jobs in social service agencies or business. However, a master's degree is generally the minimum requirement for professional work such as the administration and interpretation of psychological tests, or counseling students and handicapped persons. Psychologists with doctorates qualify for more responsible research and counseling positions, as well as for teaching in colleges and universities.

Career Leads

Advertising manager
Business/management trainee
College/university official
Community organization director
Computer Programmer
Counselor (guidance, rehabilitation, residence, vocational)
Editor/journalist
Efficiency engineer
Hospital administrator
Job analyst
Lawyer
Market research analyst
Occupational therapist
Personnel manager
Physician
Police officer
Probation/parole officer
Psychiatrist
Psychologist (clinical, counseling, developmental, educational, engineering, experimental, industrial, school, social)
Psychometrician
Public relations
Public survey worker
Recreation director
Social/welfare worker
Speech pathologist/audiologist
Statistician
Teacher
Teacher of handicapped, mentally retarded, learning disabilities
Writer: business, trade, technical publications

Hiring Institutions

Adoption and child care agencies
Advertising agencies and departments
Business corporations and industries
College, schools, and educational institutions
Community organizations:
  (recreation departments, YM-YWCA's, YM-YWHA's, Boy Scouts, Girl Scouts, etc.)
Courts and correctional institutions
Government agencies:
  Department of Defense
  Public Health Service
  Veterans Administration
Hospitals
Research institutes
Magazines, newspapers, and periodicals
Market research departments and firms
Personnel departments
Professional and technical journals
Public relations firms
Test development corporations
Social service agencies

Student Interest Code
I-S-A

RECREATION (PRE)

Two years of a four-year degree program in Recreation and Park Administration can be completed at IVCC for some schools.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Places of Employment

Career positions can be found in municipal and country parks and recreation departments, state park systems, Federal agencies such as the Army Corps of Engineers and the National Park Service. Many jobs for recreation workers are found in private and commercial recreation including amusement parks, sports, entertainment centers, wilderness and survival enterprises, tourist attractions, camps, health and athletic clubs and apartment complexes. The types of positions available are:

Program Specialists in dance, drama, the arts, and athletics; Recreation Center Directors; Therapeutic Recreation Specialists; Camp Directors; Interpretive Naturalists; Senior Citizen Center Directors; Park Rangers; Park Managers; Church Recreation Directors; Industrial Recreations Director; Correction Recreation Specialists; and Stadium Managers.

Nature of the Work

Participation in organized recreation is more important today than ever before as people find the amount of leisure time in their lives increasing. Recreation workers plan, organize, and direct individual and group activities that help people enjoy their leisure hours. They work with people of all ages and socioeconomic levels; the sick and the well; and the emotionally and physically handicapped. Their employment settings range from the wilderness to rural to suburban and urban, including the inner city.

A Bachelor's Degree with a major in Recreational Park Administration is rapidly becoming the entry level requirements for those seeking full-time career positions in the profession.

> **CHRISTINE STUHR GIACOMELLI**
> Supervisor of Special Populations
> Springfield Recreation Department
> Springfield, Illinois
>
> "The instruction at IVCC provided me with a solid basis in my current profession; it allowed me to seek and achieve my bachelor's degree; and it allowed me to experience my first professional internship and job. The education offered at IVCC is easily comparable to that of any four-year institution--top quality!"

Employment Outlook

Employment of recreation workers in expected to grow about as fast as the average for all occupations through the mid-1990's, as people have more leisure time; as more older people use senior centers and nursing homes; and as additional recreation sites are constructed. Commercial recreation is expected to offer more favorable opportunities than either public or voluntary sectors.

Student Interest Code
S-E-A

(Continued on Next Page)

(Cont'd.)

COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
RECREATION
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101 (English Comp I).	3
HPR 107 (Intro to Recreation) . .	3
HPR 108 (Principles of Camping) .	3
Humanities+.	3
Social Science+.	3
HPR+	1
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102 (English Comp II). . .	3
HPR 109 (Intro to Therapeutic Rd.)	3
SPH 101 (Fund of Speech). . . .	3
Humanities+	3
Science/Math+	4
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ART 109 (Pottery I).	2
HPR 208 (PE Activities for Elementary School Children). .	2
Humanities+.	3
Science/Math+.	4
Social Science+.	3
HPR+	1
Computer Literacy+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
Humanities+	3
Science/Math+	3
Elective+	7
Social Science+	3
TOTAL CREDIT HOURS:	16

*Prerequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

RONALD KRZYANIAK, N.C. Programmer
Caterpillar, Inc.
Aurora, Illinois

"Over the years, I have had a variety of jobs in the manufacturing area and have had little trouble adapting due to my educational background. In order to get yourself into just about any major manufacturing facility, you need at least two years of college, and IVCC offers an excellent program."

SOCIOLOGY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years in a four-year degree program in Sociology can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois Colleges and Universities.

General Description

Sociologists study the behavior of people within social groups such as families, tribes, and communities. They analyze the patterns of social, political, religious, and business organizations and the influence of these groups on the total society. Sociologists also conduct research to discover the causes of social problems such as crime, divorce, poverty, and racism.

Students with a bachelor's degree can secure jobs as case workers, interviewers, or research assistants. Advanced degrees, however, are required for research and college teaching positions, or for administration and consulting work.

Career Leads

Administrative officer (federal, state, county, municipal)
Advertising manager
Anthropologist
Archeological assistant
Business/management trainee
College/university official
Community organization official
Counselor (guidance, rehabilitation, residence, vocational)
Editor/journalist
Hospital administrator
Labor relations specialist
Lawyer
Market research analyst
Personnel manager
Police officer
Probation/parole officer
Psychologist
Public health educator
Public relations
Public survey worker
Recreation director
Research assistant (documents and records)
Social/welfare worker
Sociologist (criminologist, penologist industrial, social ecologist)
Statistician
Teacher
Urban planner
Writer: business, trade, technical publications

Hiring Institutions

Adoption and child care agencies
Advertising agencies and departments
Business corporations and industries
Colleges, schools, and educational institutions
Community organizations (recreation departments, YM-YWCA's, YM-YWHA's, Girl Scouts, etc.)
Courts and correctional institutions
Goverment agencies
Hospitals
Labor unions
Magazines, newspapers and periodicals
Market research departments and firms
Personnel departments
Professional and technical journals
Public relations firms
Research institutes
Social service agencies

Student Interest Code
S-I-A

Continued on Next Page

SOCIOLOGY (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
SOCIOLOGY
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3
SOC 100(Intro to Sociology)	3
Electives[2]	2
HPR+	1
Humanities+	3
Science/Math+	4
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102(English Comp II)	3
*SOC 200(Social/Cultural Change)	3
Science/Math+	4
Electives[2]	2
Humanities+	3
HPR+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
Electives[1]	7
Humanities+	3
Science/Math+	3
ANT 100 (Anthropology)	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
Electives[2,3]	9
Computer Literacy+	1
Humanities+	3
SPH 101 (Fund of Speech)	3
TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

THEATRE (PRE)

IVCC COURSE OUTLINE FOR ASSOCIATE IN ARTS DEGREE
for students planning to major in
THEATRE
at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
ENG 101(English Comp I)	3
SPH 101(Fund of Speech)	3
SPH 105(Theatre Playhouse Production)	3
SPH 106(Acting)	3
Science/Math+	4
TOTAL CREDIT HOURS:	16

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*ENG 102(English Comp II)	3
SPH 202(Intro to Theatre)	3
Humanities+	3
Science/Math+	4
Social Science[1]+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
Electives[3]	6
SPH 205(Theatre Playhouse Production)	3
Humanities+	3
Science/Math+	3
HPR+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
SPH 201(Oral Interpretation)	3
Humanities+	3
Social Science+	6
Elective[2]	2
Computer Literacy+	1
HPR+	1
TOTAL CREDIT HOURS:	16

* Prerequisite--see IVCC college catalog.
+ Select from reverse side.

Continued on Next Page

THEATRE (PRE)

Two years of a four-year degree program in Theatre can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students to select the courses required in this field at a number of four-year Illinois colleges and universites.

Nature of the Work

Making a character come to life before an audience is a job that has glamour and fascination.

A number of actors and actresses achieve recognition on the stage, in motion pictures, or on television or radio. A larger number, well-known, experienced performers, frequently are cast in supporting roles.

New stage actors generally start in "bit" parts, where they speak only a few lines. If successful, they may progress to larger, supporting roles.

Actors who prepare for stage, screen, and television roles rehearse many hours. They must meorize their lines and know their cues.

Actors may find alternative jobs as coaches of drama or directors of stage, television, radio, or motion picture productions. They may teach in drama departments of colleges and universities.

Training

Young persons who aspire to acting careers should take part in high school and college plays, or work with little theatres and other acting groups for experience.

Aspiring young artists usually spend years in intensive training and practice before they are ready for public performances. They not only need natural talent, but also determination, a willingness to work long and hard, and an overwhelming interest in their chosen field.

GRADUATES APPEARING IN CHICAGO

In December of 1986, four former IVCC students were simultaneously appearing in professional theatre in Chicago. GENE WEYGANDT (1969-1971) won Chicago's prestigious Joseph Jefferson Award as Best Actor in a Musical for his performance in the Royal George Theatre production of Little Shop of Horrors. MICHELLE CALLAHAN (1968-1970) played Doris in the Pheasant Run production of Same Time Next Year. MARK MAJEWSKI (1976-1979) made his professional theatre as the title role in the Body Politic production of Corpsel. KARL POTTHOFF (1977-1979) played the title role in the City Lit Theatre Company production of Diggory's Rag and Other Tales.

About 800 colleges and universities confer bachelor's or higher degrees on students who major in dramatic and theater arts. College drama curriculums usually include courses in liberal arts, speech, pantomime, directing, playwriting, play production, and history of the drama, as well as practical courses in acting. Graduate degrees in fine arts or drama are needed for college teaching positions.

Employment Outlook

Competition will continue to be keen for jobs in the theatre, but there will be openings for those with desire and training--especially in the technical areas.

Student Interest Code
A-I-S

VETERINARY (PRE)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Two years of a Pre-Veterinary Medicine degree can be completed at IVCC.

IVCC counselors have prepared curriculum guides to assist students in selecting the courses required in this field at a number of four-year Illinois colleges and universities.

Training, Other Qualifications and Advancement

All states require veterinarians to have a license. To obtain a license, applicants must have a Doctor of Veterinary Medicine (D.V.M. or V.M.D.) degree from an accredited college of veterinary medicine and pass written and oral state board proficiency examinations.

The D.V.M. or V.M.D. degree requires a minimum of six years of college consisting of a four-year professional degree program, preceded by at least two years of preveterinary study that emphasizes the physical and biological sciences.

Admission to veterinary schools is highly competitive. Each year there are many more qualified applicants than the schools can accept. Serious applicants usually need grades of "B" or better, especially in science courses. Experience in part-time or summer jobs working with animals is advantageous. Colleges usually give preference to residents of the state in which the college is located, because these schools are largely state supported.

Nature of the Work

Veterinarians (doctors of veterinary medicine) diagnose, treat, and control diseases and injuries among animals. They help prevent the outbreak and spread of animal diseases, many of which can be transmitted to human beings.

Veterinarians treat animals in hospitals and clinics or on farms and ranches.

Veterinary medicine offers a variety of practice specialties. Over one-third of all veterinarians treat small animals or pets exclusively. About another third treat both large and small animals. A large number specialize in the health and breeding of cattle, poultry, sheep, swine, or horses. Many veterinarians inspect meat, poultry, and other foods as part of Federal and state public health programs.

Employment Outlook

Employment of veterinarians is expected to grow faster than the average for all occupations through the mid-1990's, primarily because of the growth in the companion animal population. However, despite the growth in employment, newly qualified veterinarians may face competition in establishing a practice in some areas due to the increasingly abundant supply of practitioners. Opportunities are presently excellent for those in some specialties such as food animal practice, toxicology, and pathology, and demand for specialists is expected to remain strong.

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COURSE OUTLINE FOR ASSOCIATE IN SCIENCE DEGREE
for students planning to major in PRE-VETERINARY MEDICINE at a 4-year university

IT IS THE STUDENT'S RESPONSIBILITY TO MEET ALL REQUIREMENTS FOR THEIR CHOSEN DEGREE. IVCC courses should be selected according to the requirements of one's transfer university.

The following four semester outline may not be totally appropriate for any specific university. However, most of the courses stated here have been articulated to state universities and may be a "best guess" for students undecided about their transfer university or specific major. See a counselor for specific requirements at each university.

FIRST YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
BIO 103 (Prin of Biology)	4
*CHM 106 (General Chemistry)	5
ENG 101 (English Comp I)	3
*MTH 105 (Precalculus)	5
TOTAL CREDIT HOURS:	17

FIRST YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 107 (General Chemistry)	5
*ENG 102 (English Comp II) or SPH 101 (Fund of Speech)	3
*ZOO 104 (General Zoology)	4
Social Science+	3
PE+	1
TOTAL CREDIT HOURS:	16

SECOND YEAR - FIRST SEMESTER

COURSE NO./NAME	CREDIT
*CHM 202 (Organic Chemistry I)	5
*PHY 203 (General Physics)	5
Humanities+	3
Social Science+	3
TOTAL CREDIT HOURS:	16

SECOND YEAR - SECOND SEMESTER

COURSE NO./NAME	CREDIT
*CHM 203 (Organic Chemistry II)	5
*PHY 204 (General Physics)	5
Humanities+	3
Computer Literacy+	1
PE+	1
TOTAL CREDIT HOURS:	15

*Prequisite--see IVCC college catalog
+Select from General Education Requirements for Graduation

WILLIAM ULRICH, Degree Option Trainee
Caterpillar, Inc.

"The fundamental knowledge I gained in the various aspects of manufacturing at IVCC prepared me well for the variety of jobs I've held at Caterpillar over the past 13 years.. I believe IVCC has some of the most advanced equipment for teaching people about the latest technology that you'll find in the state. I'm proud to say I went to IVCC and highly recommend it as a school."

TWO-YEAR ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS AT ILLINOIS VALLEY COMMUNITY COLLEGE

2-Yr. Programs Designed for Employment

ACCOUNTING 101-102
AGRIBUSINESS MANAGEMENT 103
AGRIMECHANICS/DIESEL POWER . . . 106-107
AUTOMOTIVE MECHANICS 110
CHILD CARE/PRESCHOOL EDUCATION . 111-112
COMPUTER INFORMATION SYSTEMS . . 114
CRIMINAL JUSTICE 117
ELECTRONICS TECHNOLOGY 120
FIRE SCIENCE TECHNOLOGY 121
MARKETING 123
MECHANICAL ENGINEERING TECHNOLOGY 124
MECHANICAL TECHNOLOGY/ROBOTIC APPLICATIONS 125
MID-MANAGEMENT 126
NURSING (R.N.) 128-130
SECRETARIAL SCIENCE. 133

Donald Hayden, Director of Computer Services

CERTIFICATE PROGRAMS AT ILLINOIS VALLEY COMMUNITY COLLEGE

Less Than 2-Year Program

ACCOUNTING
  Basic 102
  Intermediate. 102
  Advanced. 102
AGRIBUSINESS PRODUCTION AND MANAGEMENT 104

AGRIBUSINESS SUPPLY AND SERVICE
  Animal Science Emphasis 105
  Agronomy Emphasis 105
AGRIMECHANICS 107
AUTOMOTIVE MECHANICS. 110
CLERICAL. 113

COMPUTER APPLICATIONS
  Computer Concepts for Small Business 113

COMPUTER NUMERICAL CONTROL
  CNC Operator 115
  CNC Programmer 115
COMPUTER OPERATION 116
COMPUTER PROGRAMMING 116
CRIMINAL JUSTICE 117
DENTAL ASSISTING 118-119
DIESEL FUEL SYSTEM 108
DIESEL TRUCK MECHANICS 109
FIRE SCIENCE 121
HEAVY EQUIPMENT MECHANICS 109
INDUSTRIAL ELECTRICIANS 122
MICRO-COMPUTER 116
NURSING ASSISTANT 131
RETAILING/MERCHANDISING 132
WORD PROCESSING 134
WORD PROCESSING - SYSTEMS MANAGEMENT. 135

GENERAL EDUCATION COURSES
FOR THE A.A.S. DEGREES

The following courses make up the General Education courses acceptable in the A.A.S. degrees (Associate in Applied Science).

Communications

ENG 124
ENG 125
ENG 101
ENG 102
SPH 101
BUE 222

Humanities

HUM 101	Appreciation through Art
HUM 102	Appreciation through Music
HUM 103	Appreciation through Theatre
HUM 104	Readings in Fiction
HUM 105	Readings in Logic
HUM 106	Readings in Drama
HUM 107	Special Topics in the Humanities

Additional option of the General Education Humanities courses for A.A., A.S. degrees.

Social Science

ECN 203
ECN 204
PSI 100
PSI 102
PSY 100
PSY 220
SOC 100

Additional option of General Education Social Science courses for A.A., A.S. degrees.

Science & Math

A-H 220
BUE 103
MTH 123
MTH 128
MTH 129
PHY 120
PHY 121
ZOO 107
ZOO 108

Additional option of General Education science and mathematics courses for A.A. and A.S. degrees.

Wellness/Health/P.E.

*HPR 100
HPR 101

Additional option of any physical education activity course in the General Education listing for A.A., A.S. degrees.

* Required of all A.A.S. students.

ACCOUNTING

(Associate in Applied Science Degree and Certificates)

Nature of the Work

Managers must have up-to-date financial information to make important decisions. Accountants prepare and analyze financial reports that furnish this kind of information.

Three major accounting fields are public, managerial, and governmental accounting. Since a four-year degree is basically required to become a C.P.A. (Certified Public Accountant), this program emphasizes internal accounting procedures of business organizations and governmental units.

Employment Outlook

Employment is expected to grow faster than the average for all occupations through the mid-1990's due to the key role these workers play in the management of all types of businesses.

Program Design

This program is designed to prepare a student for employment as Junior Accountant, Bookkeeper, or Accounting Clerk. The sequence of courses provides classroom, laboratory and practical work experiences intended to develop the occupational skills necessary for various levels of employment in the accounting field.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
ACT 101 - Financial Accounting	3
*Math Elective	3-4
ENG 124 - Communications I	3
ECN 203 - Principles of Economics I	3
Humanities Elective	2-3
BUE 123 - Keyboarding	1
	15-17

Second Semester

ACT 102 - Managerial Accounting	3
**Programming Elective	3
BUE 222 - Business Communication	3
ECN 204 - Principles of Economics II	3
ACT 120 - Tax Accounting	3
HPR 100 - Wellness	1
	16

SECOND YEAR

First Semester

ACT 201 - Intermediate Accounting I	3
ACT 202 - Cost Accounting	3
MKT 101 - Principles of Marketing	3
BUE 201 - Business Law I	3
Elective	3
PCI 122 - LOTUS 1-2-3	1
	16

Second Semester

ACT 222 - Intermediate Accounting II	3
ACT 227 - Internship or Approved Business Elective	3
ACT 123 - Accounting on Microcomputers	1
BUL 202 - Business Law II	3
MGT 201 - Principles of Management	3
ACT 221 - Accounting for Non-Business Organizations.	1
ACT 224 - Payroll Accounting.	1
ACT 226 - Internal Auditing	1
	16

64 Hours Required for Degree

(Continued on Next Page)

SUGGESTED HIGH SCHOOL PREPARATION:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt/econ)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

ACCOUNTING (continued)

Suggested Business Electives

MGT 123 - Own/Operate Small Business (3)
FIN 120 - Finance (3)
BFC 120 - Principles/Bank Operation (3)
ECN 205 - Business Statistics (3)
BFC 125 - Bank Accounting (2)

* Math Electives

BUE 103 - Business Mathematics (3)
MTH 100 - Fundamentals of Mathematics (3)
MTH 101 - Intermediate Algebra (3)
MTH 103 - College Algebra (3)
MTH 104 - Trigonometry (3)
MTH 106 - Finite Mathematics (4)
MTH 107 - Calculus for Business and Social Sciences (4)

CERTIFICATES

Basic Certificate

ACT 101 - Financial Accounting
ACT 102 - Managerial Accounting
BUE 103 - Business Mathematics

Intermediate Certificate

ACT 120 - Tax Accounting
*ACT 201 - Intermediate Accounting
*ACT 202 - Cost Accounting

Advanced Certificate

*ACT 222 - Intermediate Accounting II
*ACT 226 - Internal Auditing
*FIN 120 - Principles of Finance
*ACT 221 - Accounting for Non-Business Organization
*ACT 224 - Payroll Accounting

**Programming Electives

CSI 101 - FORTRAN (3)
CSI 102 - Intro to Business Computer Systems (3)
CSI 201 - COBOL (3)
CSI 204 - PL/I (3)
DP 225 - RPG (3)
PC 129 - BASIC (3)
PC 227 - PASCAL (3)

*** PC Electives

To be selected from one (1) hour Accounting, Data Base, Spreadsheet, or Word Processing courses.

IVCC accounting instructors Alice Steljes and Gerald Olson (far right) were honored by the Internal Revenue Service for organizing a VITA (Volunteer Income Tax Assistance) program on the IVCC campus. Congratulating the two instructors are Dr. Hans Andrews (far left), Dean of Instruction, and Lew Cushing, Chairman of the Business Division.

*Students should be aware that some second year accounting classes may be available only in the evening during a given academic year. (ACT 201, ACT 202, ACT 221, ACT 222, ACT 224, ACT 226)

Student Interest Code
C-E-S

AGRIBUSINESS MANAGEMENT

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Nature of the Work and Employment Possibilities

Agribusiness Management includes both production agriculture and supply and service occupations. Some of the specific jobs on a farm or ranch might include those of farm operator, farm manager, farm operator-manager, and herdsman. Individuals completing this degree could also find a tremendous demand for their skills and services in the agriculture chemicals, feeds, fertilizers, grains, seeds and other agricultural related businesses. Jobs will be in sales, operation, and possibly management areas.

Program Design

The Agribusiness Management Program is structured so that the student may complete the degree in two years. Classroom and laboratory instruction together with a supervised work experience at a selected training site will provide the graduate with a well rounded education and with hands-on experiences.

Employment Outlook

Projections for the agricultural job market through 1990 were published by the U.S. Department of Agriculture in 1986, citing a ten percent shortfall of graduates for the available jobs each year. Opportunities will be greatest in the areas of marketing and sales along with most of the agricultural sciences.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
AGR 100 - Introduction to Field Crop Science	4
AGR 102 - Introduction to Agriculture Mechanization	4
ENG 101 - English Composition I or ENG 124 - Communications I	3
BUE 103 - Business Mathematics	3
Agriculture or Welding Elective	2-3
	16-17

Second Semester

Course No.	Hrs. Cr.
AGR 101 - Introduction to Agriculture Economics	3
AGR 121 - Feeds and Feeding	3
AGR 225 - Agriculture Internship Seminar	1
ENG 102 - English Composition II or ENG 125 - Communications II	3
CHM 121 - Agricultural Chemistry I	4
	14

SUMMER SESSION

Course No.	Hrs. Cr.
AGR 224 - Internship	4.5

SECOND YEAR

First Semester

Course No.	Hrs. Cr.
AGR 201 - Introduction to Soil Science	4
AGR 221 - Farm Management Problems	3
AGR 222 - Agriculture Chemicals	3
ACT 121 - Fundamentals of Accounting	3
Social Science Elective	3
	16

Second Semester

Course No.	Hrs. Cr.
AGR 103 - Animal Science (first 9 weeks)	3
AGR 224 - Internship (second 9 weeks)	4.5
Agriculture Elective	2-3
HPR 100 - Wellness	1
HPR 101 - Wellness Lab	1
Humanities Elective	1
	12.5 - 13.5

Student Interest Code
E-S-A

Students interested in a supply and service-related career should take AGR 120 - Introduction to Agriculture Business and AGR 223 - Agriculture Sales, as their electives.

Students interested in an agriculture production career should take a welding course and AGR 226 - Marketing and Finance, as their electives.

The AGR 224 - Internship will be served at an agribusiness location offering training opportunities similar to the student's career goals.

AGRICULTURE PRODUCTION AND MANAGEMENT

CERTIFICATE

This certificate consists of 30 semester hours of specified agriculture courses and 2 to 3 semester hours of electives.

Course	Title	Sem. Hrs.
AGR 100	Introduction to Field Crop Science	4
AGR 101	Introductory Agricultural Economics	3
AGR 102	Introduction to Agriculture Mechanics	4
AGR 103	Animal Science	3
AGR 201	Introductory Soil Science	4
AGR 221	Farm Management Problems	3
AGR 222	Agriculture Chemicals	3
AGR 226	Agriculture Marketing and Finance	3
AGM 129	Diesel Technology	3
	TOTAL	30
	Electives	2-3
	Certificate	32-33

Two to three semester hours of electives are to be chosen from the following courses:

Electives

AGR 121	Feeds and Feeding	3
AGR 227	Livestock Selection	3
AGM 126	Air Conditioning	2
AGM 127	Electrical Systems	2

Completion of this certificate would educate the student for employment in production agriculture. Farms and agribusinesses directly involved with farm production would be possible employers. If the student decides to continue their education after completion of this certificate, many of the courses may be applied toward the Associate in Applied Science degree in Production and Management.

TIM HARRIS, Dairy & Grain Farmer
Princeton, Illinois

"IVCC prepared me to make financial decisions that I had no knowledge of before. IVCC is a fine school, capable of preparing students for the work place in today's society."

AGRIBUSINESS SUPPLY & SERVICE CERTIFICATE
(Animal Science Emphasis)

This certificate consists of 30 semester hours. It is designed for completion in one year if the student desires.

Course	Title	Sem. Hrs.
AGR 101	Introductory Agriculture Economics	3
AGR 102	Introduction to Agriculture Mechanics	4
AGR 103	Animal Science	3
AGR 120	Introduction to Agriculture Business	3
AGR 121	Feeds & Feeding	3
AGR 223	Agricultural Sales	2
AGR 226	Agriculture Marketing and Finance	3
AGR 227	Livestock Selection	3
ACT 121	Fundamentals of Accounting	3
BUE 103	Business Math	3
	TOTAL	30

Completion of this certificate with an animal science emphasis would educate the student for employment by agribusinesses that supply products for livestock production. Feed and livestock equipment companies would be possible employers. If the student decides to continue their education after completion of this certificate, many of the courses may be applied toward the Associate in Applied Science degree in Supply and Service.

AGRIBUSINESS SUPPLY & SERVICE CERTIFICATE
(Agronomy Emphasis)

This certificate consists of 33 semester hours. It is designed for completion in one year if the student desires.

Course	Title	Sem. Hrs.
AGR 100	Introduction to Field Crop Science	4
AGR 101	Introductory Agricultural Economics	3
AGR 102	Introduction to Agriculture Mechanics	4
AGR 120	Introduction to Agriculture Business	3
AGR 201	Introductory Soil Science	4
AGR 222	Agriculture Chemicals	4
AGR 223	Agricultural Sales	2
AGR 226	Agriculture Marketing and Finance	3
ACT 121	Fundamentals of Accounting	3
BUE 103	Business Math	3
	TOTAL	33

Completion of this certificate with an agronomy emphasis would educate students for employment by agribusinesses that supply products and services for crop production. Seed and chemical companies would be possible employers. If the student decides to continue their education after completion of this certificate, many of the courses may be applied toward the Associate in Applied Science degree in Supply and Service.

AGRIMECHANICS/DIESEL POWER

(Associate of Applied Science)

Nature of the Work

The area of Agri/Diesel Power is expanding to meet the challenge of expanding diesel power in the agriculture production, over the road trucking and the construction industry. Increased use of the electronic sensors and controls to monitor and fine tune engine and machine operation require increased skills to service such systems.

Employment Possibilities and Outlook

The qualified mechanic can expect to find gainful employment with any diesel or gasoline powered equipment dealership, or an independent agricultural trucking, construction or small engines business. These job openings may be in service, sales, parts and lead to openings as shop supervisor or some management capacity. The emphasis on diesel technology could also lead to an opening in the automotive field. Because of the growing complexity and size of tractors, trucks and construction machinery at present, the need for qualified and experienced service technicians is greater than ever. Skilled individuals in the Agri/Diesel Power field can expect numerous and rewarding career opportunities.

Program Design

This two-year program is designed to give the student a working knowledge of the principles, methods, and techniques, for the repair of farm machinery, diesel powered tractors, trucks and construction equipment. This course of study leading to an Associate of Applied Science degree will help the student to obtain better and more rewarding jobs. The two internship periods with area shops and businesses will provide the student with valuable occupation experience in addition to the "hands on" instruction on campus.

Students are expected to purchase a basic set of mechanic hand tools. The tool list will be available from the Agrimechanics/Diesel Power instructors.

Student Interest Code
R-I-E

(Continued on Next Page)

FIRST YEAR

First Semester

Course No./Name	Hrs. Cr.
AGM 120 - Basic Engines	4
AGM 121 - Hydraulics	4
ENG 101 - English Comp I or ENG 124 - Communications I	3
MTH 123 - Mathematics for Industry	3
WLD 120 - Beginning Welding	2
	16

Second Semester

Course No./Name	Hrs. Cr.
+AGM 125 - Transmissions and Final Drives	3
+AGM 126 - Air Conditioning	2
+AGM 127 - Electrical Systems	2
+AGM 129 - Diesel Technology	3
+AGM 220 - Advanced Engine Rebuilding	3
+ENG 102 - English Comp II or ENG 125 - Communications II	3
	16

+ See catalog for prerequisites

SECOND YEAR

First Semester

Course No./Name	Hrs. Cr.
+AGM 224 - Cummings and Detroit Diesel Injection Systems (2nd 9 wks)	2
+AGM 226 - V.E. Bosch Diesel Injection Systems (2nd 9 wks)	1
+AGM 227 - Electrical Systems Analysis (2nd 9 weeks)	2
+AGM 228 - C.A.V. and Roosa Master Diesel Injection Systems (2nd 9 weeks)	2
+AGR 224 - Internship (1st 9 weeks)	4.5
Humanities Electives	2
HPR 100 - Wellness	1
HPR 101 - Wellness Lab	1
	15.5

Second Semester

Course No./Name	Hrs. Cr.
AGM 222 - Advanced Tractor Tune-Up & Analysis (1st 9 weeks)	4
AGM 225 - Set Up & Delivery of Agri Machines (1st 9 weeks)	3
AGM 229 - Robert and American Bosch Diesel Injection Systems (first 9 weeks)	2
AGR 224 - Internship (2nd 9 weeks)	4.5
PSY 220 - Human Relations in the World of Work	3
	16.5

AGRIMECHANICS CERTIFICATE

First Semester	Credit
AGM 120 - Basic Engines	4
AGM 121 - Hydraulics	4
MTH 123 - Math for Industry	3
WLD 120 - Beginning Welding	2
	13

Second Semester	Credit
*AGM 125 - Transmissions - Final Drives	3
*AGM 126 - Air Conditioning	2
*AGM 127 - Electrical Systems	2
*AGM 129 - Diesel Technology	3
*AGM 220 - Advanced Engine Rebuilding	3
	13

* See catalog for prerequisites

This certificate may be completed in one year (two semesters). The certificate courses will give the student a working knowledge of the basic principles, methods, and techniques which are necessary for the operation, maintenance, and repair of farm machinery.

Agribusiness employees should consider this certificate to increase their mechanical skills and background. Also, students wishing to explore the area of ag mechanics may wish to begin with the certificate. Later they may complete the two-year program if they choose to pursue Ag Mechanics as a career.

DOUG TUNTLAND, Mechanic
Bob Cheeseman Chevy/Olds
Spring Valley, Illinois

"IVCC's automotive department did a very good job of covering the basic material necessary for a person to go out and hold a job as an automotive mechanic. The instructors take alot of time in staying abreast of the latest technology. They are very interested in the education of their students..."

LLOYD BENTZ, Draftsman
Panduit Corporation

"At IVCC you are a person and not just a number, which is common at larger schools. Since IVCC is a smaller school, instructors can pay greater attention to each individual, a plus for the student."

ART HANSON, Electrical Superintendent
Illinois Cement Company

"IVCC has many advantages. It's close, inexpensive, and has modern facilities throughout, along with up-to-date equipment, night class availability, and quality instructors. If you're looking for a four-year degree, spend the first two years at IVCC."

DIESEL FUEL SYSTEM CERTIFICATE

First Semester

Course No.			Hrs. Cr.
AGM 224	-	Cummings and Detroit Diesel Injection Systems	2
AGM 226	-	V.E. Bosch Diesel Injection System. .	1
AGM 228	-	C.A.V. and Roosa Master Diesel Injection Systems .	2
			5

Second Semester

Course No.			Hrs. Cr.
AGM 129	-	Diesel Technology .	3
AGM 229	-	Robert and American Bosch Diesel Injection Systems.	2
			5

This certificate can be obtained in one school year or two semesters. It is for those interested in the theory, troubleshooting, and repair of all of the various diesel fuel systems in use today. It may be obtained in conjunction with and simultaneously with certificates in Heavy Equipment Mechanic Certificate, Diesel Truck Mechanics and Agrimechanics to broaden the students employability base.

Student Interest Code
R-I-E

DIESEL TRUCK MECHANICS CERTIFICATE

First Semester

Course No.		Hrs. Cr.
AGM 120	Basic Engines	4
AGM 121	Hydraulics	4
AGM 224	Cummings and Detroit Diesel Injection Systems	2
AGM 228	C.A.V. and Roosa Master Diesel Injection Systems	2
WLD 120	Welding	2
		14

Second Semester

Course No.		
AGM 125	Transmissions and Final Drives	3
AGM 126	Air Conditioning	2
AGM 127	Electrical Systems	2
AGM 129	Diesel Technology	3
AGM 220	Advance Engine Rebuilding	3
AGM 229	Robert and American Bosch Diesel Injection Systems	2
		15

This certificate is for those interested in over-the-road trucking, be it as a driver or mechanic. Instruction covers the basic theories of engines, power train, diesel fuel systems and may be earned in one school year. Students may structure their courses to obtain certificates in Heavy Equipment Mechanic, Diesel Fuel Systems and Agrimechanics to broaden their employability base.

Further course work could lead to an Associate Degree in Agrimechanics/ Diesel Power.

HEAVY EQUIPMENT MECHANICS CERTIFICATE

First Semester

Course No.		Hrs. Cr.
AGM 120	Basic Engines	4
AGM 121	Hydraulics	4
WLD 120	Welding	2
AGM 224	Cummings and Detroit Diesel Injection Systems	2
AGM 226	V.E. Bosch Diesel Injection Systems	1
AGM 228	C.A.V. and Roosa Master Diesel Injections Systems	2
		15

Second Semester

AGM 125	Transmissions and Final Drives	3
AGM 126	Air Conditioning	2
AGM 127	Electrical Systems	2
AGM 129	Diesel Technology	3
AGM 220	Advance Engine Rebuilding	3
AGM 229	Robert and American Bosch Diesel Injection Systems	2
		15

The requirements for this certificate can be completed in one school year (two semesters). Recipients of this certificate demonstrate to their future employer the desirable characteristics of initiative, knowledge of basic mechanical theory, practical application, and employee responsibility.

Certificates in Diesel Fuel Systems and Diesel Truck Mechanics may be obtained concurrently. These may also be used as a basis for continued work for an Associate Degreee in Agrimechanics and Diesel Power.

Student Interest Code
R-I-E

AUTOMOTIVE MECHANICS

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
1-2 yrs. Mathematics
3 yrs. English
1 yr. Automotive

FIRST YEAR
First Semester

Course No.	Hrs. Cr.
ATO 120-Introduction to Automotive Mechanics	1
ATO 121-Basic Gas Engines	4
ATO 122-Basic Automotive Electricity	3
MTH 123-Mathematics for Industry	3
ENG 124-Communications I	3
HPR 100-Wellness	1
HPR 101-Wellness Lab	1
	16

Second Semester

Course No.	Hrs. Cr.
ATO 124-Power Trains and Manual Transmissions	3
ATO 125-Basic Tune-up	3
ATO 126-Steering & Suspension Systems	4
ENG 125-Communications II	3
Welding Elective	2
	15

SECOND YEAR
First Semester

Course No.	Hrs. Cr.
ATO 220-Brake System	4
ATO 221-Advanced Tune-Up	4
ATO 222-Fuel Systems and Emission Controls	4
ATO 227-Auto Diesel Systems	3
Humanities Elective	1
	16

Second Semester

Course No.	Hrs. Cr.
ATO 223-Automatic Transmissions	4
ATO 224-Automotive Accessories	3
ATO 225-Heating & Air Conditioning	3
ATO 228-Computerized Engine Controls	3
PSY 220-Human Relations in the World of Work	3
Humanities Elective	1
	17

Students are expected to purchase a basic set of mechanic hand tools. Instructors will make a tool list available.

Nature of the Work

The ability to make a quick and accurate diagnosis is one of the mechanic's most valuable skills. It requires good reasoning ability as well as a thorough knowledge of automobilies.

Employment Outlook

Job opportunities for automobile mechanics will be plentiful for persons who complete training programs at community colleges and vocational and technical schools. Employment of automobile mechanics is expected to increase faster than the average for all occupations through the mid-1990's. The growing complexity of automotive technology, particularly the use of electronics, increasingly necessitates that cars and trucks be serviced by professionals, contributing to growth in demand for automotive mechanics.

Program Design

The graduate of the associate degree program will be prepared to enter employment in many different areas. These areas include computerized engine controls, air conditioning, tune-up, transmissions, alignment, brakes and engine overhaul.

Certificate Programs

Auto Brakes, Suspension & Alignment

Course No.	Hrs. Cr.
ATO 126-Steering & Suspension Systems	4
ATO 220-Brake Systems	4
	8

Automotive Tune-Up

Course No.	Hrs. Cr.
ATO 122-Basic Automotive Electricity	3
ATO 125-Basic Automotive Tune-Up	3
	6

Advanced Tune-Up

Course No.	Hrs. Cr.
ATO 221-Advanced Tune-Up and Engine Diagnosis	4
ATO 222-Fuel System and Emission Controls	4
ATO 228-Computerized Engine Controls	3
	11

Student Interest Code
R-I-E

CHILD CARE/PRESCHOOL EDUCATION

(Associate in Applied Science)

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
CC 120-Introduction to Child Care	3
CC 126-Observation in Child Care Programs	1.5
CC 225-Art in Early Childhood	3
HOM 102-Family Living	3
PSY 100-General Psychology	3
PSY 201-Child Growth and Development	3
	16.5

Second Semester

Course No.	Hrs. Cr.
CC 222-ECC: Material Development and Implementation	4
CC 227-Teaching Music in Early Childhood	2
CC 228-Literature in Early Childhood	2
HPR 104-First Aid	2
*ENG 124-Communications I	3
HOM 120-Nutrition for the Young Child	2
	15

SECOND YEAR

First Semester

Course No.	Hrs. Cr.
CC 123-Practicum I	6
CC 121-ECC: Environment and Management	3
CC 125-Children's Health	3
*ENG 125-Communication II	3
HPR 100-Wellness	1
	16

Second Semester

Course No.	Hrs. Cr.
CC 223-Practicum II	6
CC 220-Supervision & Administration of Child Care Programs	4
CC 224-Child Care Agencies/Laws and Licensing	2
SOC 100-Introduction to Sociology	3
HPR 103-Personal and Community Hygiene	2
	17

*ENG 101 and 102 can be substituted for ENG 124 and 125.

IMPORTANT NOTE: Completion of either PSI 100 or HIS 200, or passage of the constitution examination required by law or certified by high school transcript, is a requirement for graduation.

Nature of the Work

The role of a teacher of young children is very challenging and rewarding. Teachers of young children have a variety of responsibilities. They demonstrate an understanding of child development by providing appropriate activities and materials that foster independence and success; they plan and present learning activities to individuals and small groups; they observe and record children's behavior; they participate in the selection of equipment and materials; they work cooperatively with assistant teachers, directors and other professional personnel; and they interact with parents to provide information about the program and the child's growth and development.

Program Design

The Child Care Program is designed to help develop the professional skills necessary to become outstanding teachers through an effective combination of education and field experience. The sequence of courses provides classroom and laboratory experiences which foster understanding of children's needs and develop the occupational skills necessary to plan and develop appropriate learning activities.

Supervised Experience

Students will have the opportunity to observe and actively participate in several different early childhood settings. Students develop the ability to evaluate themselves, children and their teaching techniques so that they can provide the most well balanced, educationally sound environment possible. In the placement setting students are supervised by experienced lead teachers. The student will begin in a supportive role and gradually assume more responsibility including planning and presenting of art, music, science and other learning activities to small and large groups of children.

(Continued on Next Page)

Employment Possibilities

As the number of two working parent families and single-parent families increases the need for professionals who are knowledgeable and able to function in a variety of settings continue to expand.

Depending on individual motivation, purpose in life and initiative, the field of child care provides a wealth of possibilities. Graduates meet the educational requirements for positions of center director (at age 21), lead teacher, assistant teacher, aide in nursery schools, day care centers and other programs serving infants, toddlers and preschoolers.

With further education an individual can pursue related careers as elementary teachers, social workers, family therapists, licensing representatives, child advocates and others.

Ms. Jeanne Gurski has expanded the Child Care Associate Degree program to include preparation for the new pre-school programs in Illinois public schools.

SUGGESTED HIGH SCHOOL SUBJECTS:

- 4 yrs. English (including speech)
- 3 yrs. Soc. Studies (history/govt.)
- 2 yrs. Math (including computer usage)
- 2 yrs. Science
- 2 yrs. Foreign language, music, or art.

ANNA ALLEN, Teacher
Acorn Preschool & Streator Child Dev. Center

"IVCC prepared me for my career by giving me the opportunity to student teach at three different schools, which gave me first-hand experience in my field. The classes and the instructors were very interesting, appropriate, and enjoyable, and have helped me tremendously in my day-to-day routines as a teacher."

CLERICAL

(Certificate)

Program Design

This curriculum, leading to a Certificate, is designed to prepare personnel for entry into general office positions requiring proficiency in typewriting, bookkeeping, filing, duplicating, and word processing, as well as knowledge needed for entry into clerical positions. Because clerical positions are concentrated in the fast growing finance and service industries, they are expected to grow more rapidly than the average for all occupations through the mid-1990's.

First Semester

Course No.		
BUE 101	Introduction to Business	3
BUE 103	Business Math	3
BUE 128	Typing II	2
WPR 120	Fundamentals of Office Systems	2
ENG 124	Communications I	3
WPR 122	Word Processing Applications	2
		15

Second Semester

Course No.		Hrs. Cr.
WPR 121	Transcription for Word Processing	2
WPR 123	Advanced Text Editing	2
BUE 220	Advanced Typing	2
BUE 224	Office Procedures	3
BUE 222	Business Communications	3
ACT 121	Fundamentals of Accounting	3
		15

*ACT 101 may be substituted for ACT 121.

COMPUTER APPLICATIONS

(Certificate)

COMPUTER CONCEPTS FOR SMALL BUSINESS

This certificate is designed to familiarize students with both the operation and application of small computer systems. Courses in this certificate show how the small computer system should be developed, describe how to evaluate and select computer systems, and explores the basic roles of EDP personnel and the hardware and software they work with. Also emphasized will be programming languages used in small computer installations.

Course No.		Hrs.Cr.
PC 129	Programming in BASIC	3
DP 224	DP Applications	3
DP 225	RPG & Advanced BASIC	3
PC 229	BASIC and Business Applications	3
ACT 121	Fundamentals of Accounting	3
ACT 123	Accounting on Microcomputers	1
		16

COMPUTER INFORMATION SYSTEMS
(Associate in Applied Science)

SUGGESTED HIGH SCHOOL PREPARATION:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt/econ)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)
2 yrs. Foreign language, music, or art

Nature of the Work

Computers can process masses of information rapidly and accurately, but only if they are given step-by-step instructions to follow. Because the machines cannot think for themselves, computer programmers must write detailed instructions called programs that list in a logical order the steps the machine must follow to solve a problem.

Programmers usually work from problem descriptions prepared by systems analysis who have examined the problem and determined the steps necessary to achieve the desired results.

Employment Outlook

Employment of programmers is expected to grow faster than the average for all occupations through the mid-1990's as computer usage expands. The demand for applications programmers will increase as many more processes are computerized, but employment will not grow as rapidly as in the past.

Training, Other Qualifications, and Advancements

In hiring programmers, employers look for people who can think logically and are capable of exacting analytical work. The job calls for patience, persistence, and the ability to work with extreme accuracy even under pressure. Because of rapidly changing technology, programmers must continue their training by taking courses offered by their employer and software vendors.

Program Design

This curriculum, leading to an Associate in Applied Science Degree, is designed to prepare technicians for entry in businesses and industries which utilize electronic data processing operations. This curriculum is designed to prepare students for employment.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
DP 121 - Data Processing Fundamentals	3
DP 122 - Programming Logic w/BASIC	4
PC 128 - Business Micro Systems	3
*ACT 121 - Fundamentals of Accounting	3
BUE 103 - Business Math or Math Elective	3
	16

Second Semester

Course No.	Hrs. Cr.
**ENG 124 - Communications I	3
DP 224 - Data Processing Applications	3
CSI 104 - Assembler Language	5
CSI 202 - Programming Systems	4
Humanities Elective	1-2
	16-17

SECOND YEAR

First Semester

Course No.	Hrs. Cr.
ACT 123 - Accounting on Microcomputers	1
DP 220 - External Data Structures	5
CSI 203 - Advanced Programming Systems	5
DP 225 - RPG II & Advanced BASIC or	
DP 126 - "C" Language	3
HPR - Wellness	1-2
	15-16

Second Semester

Course No.	Hrs. Cr.
DP 226 - Field Project	3
DP 221 - Systems Design	4
DP 222 - On-Line Applications	3
Social Science Elective	3
ENG 125 - Communication II	3
	16

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*ACT 101 may replace ACT 121
**ENG 101 and ENG 102 may replace ENG 124 and ENG 125

Student Interest Code
C-E-R

COMPUTER NUMERICAL CONTROL

(Certificates)

SUGGESTED HIGH SCHOOL SUBJECTS:
2-3 yrs. Math (Geometry & Trig)
Machine Shop

Nature of the Work

In order to remain competitive in a world market, manufacturers of aircraft, automobiles, machinery, and many other goods containing metal parts are using numerically controlled machines in which an electronic device controls the machine's operation. Operators and programmers of CNC (Computer Numerical Control) machines must have a broad knowledge of machining operations, mathematics, and blueprint reading. Programmers begin the task of writing a program by analyzing the blueprints. They outline the sequence of machine operations and select proper cutting tools and calculate machine speed and feed rate.

Employment Possibilities

Almost all CNC operators and programmers work for manufacturing firms that produce durable goods such as aircraft, metalworking machinery, and construction equipment.

Employment Outlook

Employment of tool programmers is expected to increase much faster than the average for all occupations through the mid-1990's.

Program Design

Initially these curriculi will be offered only in the evening to provide industry with a cooperative training program in order to satisfy their labor needs. The programs will progress from basic machine tool operations to CNC operations to CNC programming.

CNC OPERATORS CERTIFICATE

PREREQUISITES TO ENTER PROGRAM:

1. Minimum competency level for mathematics will be applied trigonometry.
2. Industrial training (must be documented) in machine tool operation, blueprint reading and/or drafting, and metallurgy.

OR Academic Credit equivalent to:

DFT 123-Mechanical Blueprint Reading or Mechanical Drafting
MT 121-Materials of Industry
MT 122-Manufacturing Processes I
MTL 120-Manufacturing Processes Lab I
MTH 104-Trigonometry
or
MTH 128-Applied Mathematics I

OR Consent of instructor.

Course No.	Hrs. Cr.
MT 123-Fundamentals of Numerical Control	2
MTL 122-Manufacturing Processes Lab III	3
CNC 120-CNC Operations I	3
CNC 122-Manual Programming	3
CNC 124-CNC Operations II	3
CNC 126-CNC Operations III	3
	17

CNC PROGRAMMERS CERTIFICATE

PREREQUISITE TO ENTER PROGRAM:
CNC Operators Certificate

Course No.	Hrs. Cr.
MTH 129-Applied Mathematics II	5
CNC 220-Machine Programming I (Milling & Drilling)	4
CNC 222-Machine Programming II (Turning Center Work)	4
CNC 224-Machine Programming III (APT)	4
	17

COMPUTER OPERATION, COMPUTER PROGRAMMING, AND MICRO-COMPUTER

(Certificates)

Computer Operation

This certificate program is designed to equip the student to enter the Data Processing field as a computer operator.

Emphasis is placed on understanding the total operating system.

Students will have hands-on laboratory experience centering around IVCC's IBM 4331 Mainframe and related equipment.

First Semester

Course No.		Hrs. Cr.
ENG 124	Communications I	3
DP 121	Data Processing Fundamentals	3
DP 123	Computer Operations I .	4
ACT 121	Fundamentals of Accounting	3
PC 129	Programming in BASIC . .	3
BUE 123	Keyboarding	1
		17

Second Semester

Course No.		Hrs. Cr.
ACT 123	Accounting on Microcomputers	1
ENG 125	Communications II . . .	3
PC 128	Business Micro Systems .	3
DP 124	Computer Operations II .	4
DP 225	RPG and Advanced BASIC .	3
PC Elective	. . . .	1
		15

Summer Session

Course No.		Hrs. Cr.
DP 227	Operations Field Project...	3
WPR 122	Word Processing Applications	2
		5

Computer Programming

The programming certificate is designed to acquaint the student with various programming languages.

Course No.		Hrs. Cr.
DP 121	Fundamentals of Data Processing.	3
CSI 101	Computer Programming .	3
DP 123	Computer Operations I .	4
DP 122	Prog. LOGIC w/BASIC . .	4
DP 225	RPG and Advanced BASIC	3
CSI 104	Assembler Language Programming	5
		22

Microcomputer

This certificate will provide students with a working knowledge of microcomputer programming and use. Emphasis is placed upon "hands-on" instruction using IVCC's IBM microcomputers.

Course No.		Hrs. Cr.
PC 124	Appl Using LOTUS1-2-3	3
PC 126	Microcomputers Applic.	3
PC 128	Business Microcomputer Systems	3
PC 129	Programming in BASIC. .	3
PC 227	PASCAL for Problem Solving with a Microcomputer.	3
PCD 120	dBASE III	1
PCI 122	LOTUS 1-2-3	1
PCW 120	IBM DisplayWrite 3 or	
PCW 121	Wordstar	1
		18

Student Interest Code
Computer Operation: C-E-R
Computer Programming: C-E-R
Data Entry: C-R-I
Microcomputer: C-E-R

CRIMINAL JUSTICE

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
2 yrs. Math (including computer usage)
2 yrs. Science (one year lab sci.)
1 yr. Spanish

Nature of the Work

The Criminal Justice Program is a broad-based curriculum which deals in general with rising crime rates and social order problems within our society. The major components of the Criminal Justice System are: police, courts, and corrections.

Employment Possibilities

Graduates of the Criminal Justice Program can obtain employment at the local, county, state, and federal level within the Criminal Justice System and in other governmental regulatory agencies. Titles of job opportunities include: patrolperson, investigator, dispatcher, probation officer, correctional officer, traffic officer, and many others. Graduates may find employment with private firms in such capacities as private detectives, private security patrolpersons and safety officers.

Employment Outlook

Will continue to grow faster than the average of other occupations in most specialties. College educated people will best be able to compete for these sought after positions. Private sector employment in protective services will continue its growth into the middle 1990's.

Certificate Program

-30 Credit Hours-

Course No.	Hrs. Cr.
CRJ 100-Introduction to Criminal Justice	3
CRJ 103-Juvenile Delinquency	3
CRJ 107-Introduction to Corrections	3
CRJ 121-Police Patrol and Service	3
CRJ 126-Administration of Justice	3
CRJ 201-Criminal Investigation	3
CRJ 202-Criminal Law	3
CRJ 203-Evidence and Criminal Procedures	3
CRJ 226-Police Community Relations	3
Criminal Justice Related Electives	3
	30

Program Design

This curriculum, leading to a one-year certificate or a two-year associate in applied science degree, is designed to prepare those students who plan to work with public and private agencies concerned with such areas as public safety, crime prevention, criminal apprehension, offender punishment, and rehabilitation. Persons employed by criminal justice agencies can also enroll and benefit from this program.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
CRJ 100-Introduction to Criminal Justice	3
CRJ 121-Police Patrol and Service	3
+ENG 124-Communications I	3
PSY 100-General Psychology	3
SPH 101-Fundamentals of Speech	3
	15

Second Semester

Course No.	Hrs. Cr.
CRJ 103-Juvenile Delinquency	3
CRJ 126-Administration of Justice	3
+ENG 125-Communications II	3
PSI 100-American National Government	3
HPR 100-Wellness	1
Approved Elective	3
	16

SECOND YEAR

First Semester

Course No.	Hrs. Cr.
CRJ 201-Criminal Investigation	3
CRJ 203-Evidence and Criminal Procedures	3
PSI 102-State and Local Government	3
A-H 220-Emergency Medical Procedures	3
Approved Electives	5
	17

Second Semester

Course No.	Hrs. Cr.
CRJ 107-Introduction to Corrections	3
CRJ 202-Criminal Law	3
CRJ 226-Police Community Relations	3
SOC 100-Introduction to Sociology	3
Approved Electives	4
	16

+Notes: ENG 101 and 102 may be substituted for ENG 124 and 125. Students planning to transfer should take ENG 101 and 102.

Student Interest Code R-S-E

DENTAL ASSISTING

Nature of the Work

Dental assistants work with dentists as they examine and treat patients. The assistant makes the patients comfortable in the dental chair, prepares them for treatment, and obtains their dental records. The assistant hands the dentists the proper instruments and materials and keeps the patient's mouth clear by using suction or other devices. Dental assistants prepare materials for making impressions and restorations and expose radiographs and process dental X-ray film as directed by the dentist.

They sterilize and disinfect instruments and equipment; prepare tray set-ups for dental procedures, provide post-operative instructions; and instruct patients in oral health practices.

Some dental assistants manage the office and arrange and confirm appointments, receive patients, keep treatment records, send bills, receive payments, and order dental supplies and materials.

The work of the dental assistant should not be confused with that of the dental hygienist, who must be licensed to scale and polish the teeth.

Places of Employment

Most dental assistants work in private dental offices, either for individual dentists or for groups of dentists. Many of the remainder work in dental schools, hospital dental departments, state and local public health departments, or private clinics. The Federal government employs dental assistants in hospitals and dental clinics of the U.S. Public Health Service and the Veterans Administration.

Employment Outlook

Employment of dental assistants is expected to grow faster than the average for all occupations through the mid-1990's, reflecting dentists' interest in improving their productivity as well as increased demand for dental care.

Employment opportunities for dental assistants who are graduates of academic programs in dental assisting are expected to be excellent. Part-time opportunities also will be very favorable.

Program Design

This program is designed to be completed in a one-year period. One summer session and two consecutive semesters make up the program. Clinical experience is offered in dental offices during the last semester.

High School students interested in careers as dental assistants should take courses in biology, chemistry, health, typing and office practices.

Admission to the Dental Assisting program is selective. Please contact the Admissions office or a local high school counselor for complete details concerning admission requirements and the selection procedure.

Student Interest Code
S-A-I

(Continued on Next Page)

SUMMER SESSION

Course No.		Hrs. Cr.
ENG 124	Communications I	3
*PSY 220	Human Relations in the World of Work	3
ZOO 120	Human Body Structure & Function	2
		8

These must be completed with a "C" grade or above before enrolling in a DLA prefix course.

*PSY 100 may be substituted for PSY 220.

FALL SEMESTER

Course No.		Hrs. Cr.
DLA 120	Dental Science I	2
DLA 121	Dental Materials & Lab Procedures	4
DLA 122	Preventive Dentistry	2
DLA 123	Pre-Clinical Orientation	6
DLA 124	Dental Radiography I	2
DLA 127	Supervised Dental Assisting Practice	1
		17

SPRING SEMESTER

Course No.		Hrs. Cr.
DLA 125	Dental lab Procedures	2
DLA 126	Clinical Practice	6
DLA 128	Dental Office Management	3
DLA 220	Dental Science II	2
DLA 224	Dental Radiography II	2
A-H 126	Cardio-Pulmonary Resuscitation	1
		16

ANDREW CURRENT, Engineer
LCN Closers, Div. of Ingersoll Rand
Princeton, Illinois

"Instructors at IVCC or as good or better than I have found in four-year colleges. The equipment seems to be better than ISU, SIU, NIU, Eastern, and Western...I've seen them all."

GRETCHEN HASKETT, Engineering Technician
Burkhardt & Assoc., Inc.

"I went back to college with the express purpose of getting a job that paid well and was interesting. My degree from IVCC got one for me. When you graduate, you will find you are in a position to choose from among many job offers."

DAVID KOROSEC, Process Engineer
Conco-Tellus
Mendota, Illinois

"With the CAD/CAM system and CNC machines, I feel IVCC is well-equipped to fulfill the students' needs for valuable hand-on training, which prepares students to work effectively with state-of-the-art equipment. I found that my instructors armed me with current manufacturing practices and practical solutions. Their ability to stay on top of changing manufacturing trends will continue to make the Robotics/Mechanical Technology program successful."

A grade of "C" or above in all courses is required for graduation from this program. If there is a course prerequisite for a second semester DLA course, one must have "C" or above for the course prerequisite: In order to take DLA 128, the student must pass BUE 107, Typing I, or pass the typing proficiency exam.

ELECTRONICS TECHNOLOGY

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
3 yrs. Mathematics
1 yr. Physics
A Computer Language Course
Electronics

PREREQUISITE TO ENTER PROGRAM:

1. A Computer Language
2. Algebra I, II and Plane Geometry
3. Mathematics Placement Exam

Course No.	Hrs. Cr.
FIRST YEAR	
First Semester	
CET 120-Introduction to Microprocessor	3
*ENG 124-Communications I	3
ET 125-DC Circuits	4
MTH 128-Applied Mathematics I	5
HPR 100-Wellness	1
	16
Second Semester	
ET 122-Electronic Devices	4
ET 126-AC Circuits	3
MTH 129-Applied Mathematics II	5
PHY 120-Applied Physics I	3
Humanities Elective	1
	16
SECOND YEAR	
First Semester	
CET 224-Microprocessor Interfacing	4
*ENG 125-Communications II	3
ET 220-Linear Circuits	3
ET 222-Digital Circuits	4
PHY 121-Applied Physics II	3
	17
Second Semester	
ET 221-Industrial Electronics	5
CET 221-Motion and Process Control	4
CET 226-Microprocessor Systems	5
PSY 220-Human Relations in the World of Work	3
	17

*ENG 101 and 102 may be substituted for ENG 124 and 125.

Students not having had high school algebra and geometry should consult with a counselor about taking a summer math course.

Initial placement in a sequence will be determined by previous mathematics classes completed and satisfactory score on mathematics placement test. Placement tests are required.

Students with prerequisites and a satisfactory score on mathematics placement test may elect to take MTH 105 (103 and 104), and 200 or 200 and 201.

Nature of the Work

Because of the general nature of the Electronics Technology Program, it affords the technician to work in almost all phases of business and government - from research and design to manufacturing, sales, and customer service.

Employment Possibilities

Graduates of the Electronics Technology Program are trained technicians capable of working in a great variety of different job categories. Because the field is so broad, technicians often specialize in one area such as electronic amplifiers, miniaturized electronic systems, electronic parts production, and customer service, maintenance, and repair of electronic equipment.

Employment Outlook

Employment of electronic technicians is expected to increase much faster than the average for all occupations through the mid-1990's due to increased demand for computers; communications equipment, military electronics and electronic consumer goods. Opportunities will be best for graduates of postsecondary school technical training programs.

Program Design

This curriculum, leading to an Associate of Applied Science Degree, is designed to prepare technicians to be employed in business, industry, and governmental agencies which utilize electronics operations.

Student Interest Code
I-R-E

SUGGESTED HIGH SCHOOL SUBJECTS:
3 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
2 yrs. Math (including computer usage)
2 yrs. Science (including chemistry)
1 yr. Foreign language, music, or art

FIRE SCIENCE TECHNOLOGY

(Associate in Applied Science)

NOTICE: This program is being developed for persons presently working for a Fire Department either full-time or on a volunteer basis. The program is intended to be taken by these people on a part-time basis in the evening and is not intended for the full-time day students interested in completing a degree of this nature in a two-year period.

Nature of the Work

The Fire Science Technology program is designed to provide students with the knowledge, attitude, and skills requisite for careers in the fire science field. A solid core of technical and fire related courses are offered along with a strong grouping of general education courses necessary to provide the person with good communication skills and a broad understanding of society.

Employment Possibilities

Graduates of the Fire Science Technology program can obtain employment at the local, state, and federal level within the Fire related system and in related governmental regulatory agencies. Titles of job opportunities include: Firefighter, Fire Marshall, Fire Inspector & Fire Prevention Specialist.

Program Design

This curriculum, leading to a 30 credit hour certificate or a 64 credit hour AAS degree, provides an avenue for those people seeking to enhance their skills sufficiently to work on a volunteer basis for the Fire Departments, or for those people who want to get adequate training and preparation for entry level jobs in fire-related careers.

Certificate Program
30 Credit Hours

Course No. & Title		
FST 120	Intro. to Fire Protection...	3
FST 121	Fire Hydralics & Equipment..	3
FST 122	Hazardous Materials.........	3
FST 123	Fire Science Apparatus......	3
FST 124	Rescue Practices............	3
FST 125	Fire Suppression............	3
FST 220	Fire Administration........	3
FST 221	Fire Prevention............	3
FST 222	Building Construction......	3
FST 223	Fire Fighting Tactics.......	3
		30

Student Interest Code
R-I-E

Employment Outlook

Employment for firefighters and employees in fire-related occupations is expected to increase as fast as the average for all occupations through the 1980's to meet the growing need for fire protection.

A.A.S. Degree Program Requirements
64 Credit Hours

1. Successful completion of the 30 credit hour courses making up the Fire Science Technology Certificate.

2. Successful completion of 6 credit hours in Communications ENG 124 and ENG 125 or ENG 101 and ENG 102. SPH 101 may be substituted for ENG 125 or ENG 102.

3. Successful completion of 6 credit hours in PSY 220 and PSI 102. PSY 100 may be substituted for PSY 220.

4. Successful completion of 9 credit hours in Science and Mathematics courses. Recommended: A-H 220 - Emergency Med. Proc., CHM 100 - Intro. to Chemistry, PSC - 100 Intro. to Phys. Science.
A-H 221 may be substituted for A-H 220.

5. Successful completion of 3 credit hours in Humanities. Choose one course from the list below:
ART 100, FEN 100, GER 100, ITL 100, SPN 100, MUS 100, PHL 100, HIS 100. Substitutions may be approved - check with Counselor or Social Sciences Division Chairperson.

6. Successful completion of 2 credit hours in HPR 100 and HPR 101.

7. Successful completion of 5 credit hours in Elective courses.

8. Successful completion of MGT 222, Principles of Supervision, or an appropriate substitute.

**9. Those students interested in becoming a Fire Service Instructor may take FST 224, and FST 225 in place of HPR 101 and the elective credit hours. FST 226 and FST 227 are additional hours in the option.

* Flexibility in course selection can be considered. Please see the Social Science Division Chairperson for prior approval in substitution courses.

INDUSTRIAL ELECTRICIANS

(Certificate)

SUGGESTED HIGH SCHOOL SUBJECTS:
1-2 yrs. Mathematics
1-2 yrs. Science
Typewriter Keyboard Manipulation (20-40 wpm)

Nature of the Work

To install service and maintain electrical equipment used in industrial plant manufacturing processes.

Employment Possibilities

Many industrial plants in the area have upgraded or have plans to upgrade their manufacturing process controls. People with the skills and knowledge necessary to work with this equipment have an advantage when these jobs become available.

Employment Outlook

As with all employment at the present time, we could hope for a better situation, but if and when the overall employment situation improves, people with these skills and knowledge will be first in demand.

Program Design

The program is a four year (eight semester) program requiring attendance two evenings a week. It covers basic electricity, schematic reading, electric motors, motor control devices and circuits. It is presently in the process of being upgraded to include microprocessor based control systems.

BRENT PASSWATER, CAD Operator
G & W Electric
Blue Island, Illinois

"The drafting/design department at IVCC is well ahead of any other college in the area. It is not hard to adjust to other brands of CAD computers since the IBM (used at IVCC) usually has more options than the others. All the instructors were in the work field before teaching, and, with the knowledge, helped me better prepare myself for a job. That is why I was employed after my first interview."

FIRST YEAR First Semester	
ELE 120-Basic Industrial Electricity I	4
Second Semester	
ELE 121-Basic Industrial Electricity II	4
SECOND YEAR First Semester	
ELE 122-Electrical Machines I	2.5
ELE 124-Electrical Schematic Reading I	2.5
Second Semester	
ELE 123-Electrical Machines II	2.5
ELE 125-Electrical Schematic Reading II	2.5
THIRD YEAR First Semester	
ET 120-Beginning Electronics	2.5
IM 122-Introduction to Electro-Mechanics	2
Second Semester	
ET 123-Applied Industrial Electronics	2.5
ELE 126-Electrical Troubleshooting	2
FOURTH YEAR First Semester	
IM 221-Control Instrumentation	4
Second Semester	
Electives-Choose from:	4
	35
MT 224-Fluid power	4
WLD-Welding Elective	2 or 4
IM 120-Equipment Maintenance I	2
IM 121-Equipment Maintenance II	2
GNT 110-Microprocessors	Variable

Student Interest Code
R-I-S

MARKETING
(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)

Nature of the Work

Marketing graduates use the broad, general business knowledge they have attained to secure entry level supervisory positions in retailing, wholesaling, and related areas of marketing and sales.

Related Job Titles

Marketing graduates qualify for positions such as sales representative, floor supervisor, manager trainee, and department manager. Students with the Marketing degree and appropriate work experience may secure positions such as store manager, personnel manager, or operations manager in retail and wholesale firms. Graduates may also use the degree to enter the fields of insurance, finance, banking, and real estate.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
BUE 101 - Introduction to Business	3
BUE 103 - Business Mathematics	3
MKT 101 - Principles of Marketing	3
*Math or Science Elective	3-5
ENG 124 - Communications I	3
BUE 123 - Keyboarding	1
	16-18

Second Semester

Course No.	Hrs. Cr.
MKT 122 - Salesmanship	3
ACT 121 - Fundamentals of Accounting	3
*Humanities Elective	1-3
*CSI/DP/PC Elective	3
ENG 125 - Communications II	3
HPR 100 - Wellness	1
	14-16

Employment Outlook

Employment in opportunities for marketing graduates are expected to rise about as fast as the average for all occupations through the mid-1990's.

Program Design

Full time students may complete the Marketing degree program in two years. Students wishing to attend part time will find the complete course offerings of the Marketing program available in the evening. Completion time for part time students will vary dependent upon the number of courses taken per semester.

SECOND YEAR

First Semester

Course No.	Hrs. Cr.
MKT 221 - Advertising	3
BUL 201 - Business Law I	3
ECN 203 - Principles of Economics I	3
MKT 227 - Marketing Internship	3
PSY 220 or SPH 101	3
*PC Elective	1
	16

Second Semester

Course No.	Hrs. Cr.
MKT 223 - Retailing	3
MKT 228 - Marketing Internship	3
BUL 202 - Business Law II	3
MGT 201 - Principles of Management	3
ECN 204 - Principles of Economics	3
*PC Elective	1
	16

ENG 101 and 102 may be substituted for ENG 124 and 125.

ACT 101 may be substituted for ACT 121.

64 semester hours required for degree.

* ELECTIVES:

Math/Science: Any 3 to 5 hour course in math or science meeting the requirements of the A.A.S. degree. See page 100 of catalog.

Humanities: Any 1 to 3 hour course in the humanities area meeting the requirements of the A.A.S. degree. See page 100 of catalog.

CSI/DP/PC: Any 3 hour computer science, data processing or personal computing course.

PC Elective: Students will select PC electives from the one (1) hour PC course offerings in Data Base, Spreadsheets, Word Processing, etc. See Personal Computing, Open entry, Open exit, Self-paced courses.

Student Interest Code
E-S

MECHANICAL ENGINEERING TECHNOLOGY

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer)

Nature of the Work

Mechanical Engineering technicians apply theory and priniciples of mechanical engineering to develop and test machinery and equipment under direction of engineering staff and physical scientists. Machine designers are increasingly using computer-aided design systems which greatly increase their productivity.

Employment Possibilities

Although the Mechanical Engineering technician generally works on the design and testing of mechanical systems and products, the draftsman usually specializes in a particular field of work, such as mechanical, electrical, aeronautical, structural, or architectural.

Employment Outlook

The projected growth (1982-1995) for Mechanical Engineering technicians is expected to be much faster than the average. Little change in employment of drafters is expected through the mid-1990's due primarily to the widespread use of computer-aided design equipment. Training on a CAD/CAM system is a must for future employment in an engineering department and graduates of this program enjoy a very high employment rate.

Program Design

This curriculum, leading to an Associate in Applied Science Degree, is designed to prepare design technicians to work with engineers on product design and development. The objective of this program is to provide the technician with knowledge and skills needed for successful employment in an mechanical engineering department.

PREREQUISITE TO ENTER PROGRAM:

1. Algebra II
2. Mathematics Placement Exam
3. DFM 120-123 or one year of high school Mechanical Drafting or consent of instructor.

FIRST YEAR
First Semester

Course No.	Hrs. Cr.
DFT 121-Computer Aided Drafting I (Computervision)........	3
MT 121-Materials of Industry...	3
***Machine Tool Option.............	3
*Mathematics......................	5
**ENG 124-Communications I.......	3
	17

Second Semester

Course No.	Hrs. Cr.
PHY 120-Applied Physics I.......	3
DFT 129-Computer Aided Drafting II (Computervision).....	3
EDT 128-Statics and Strength of Materials..............	5
*Mathematics......................	5
HPR 100-Wellness...............	1
	17

SECOND YEAR
First Semester

Course No.	Hrs. Cr.
PHY 121-Applied Physics II......	3
EDT 220-Machine Design I........	4
EDT 224-Mechanisms..............	4
EDT 225-Computer Aided Engineering............	3
**ENG 125-Communications II......	3
	17

Second Semester

Course No.	Hrs. Cr.
EDT 221-Machine Design II.......	3
EDT 227-Computer Aided Design I (CADAM)..................	3
****EDT 226-Design Technician Internship.............	4
PSY 220- Human Relations in the World of Work.........	3
Humanities Elective............	1
	14

*Mathematics: Initial placement in a and MTL 121, or MET 122.
**ENG 101 AND 102 may be substituted for ENG 124 and 125.

***Machine Tool Option: Three semester hours minimum. MT 122
****If an internship is unavailable, EDT 228-Design Projects, will be required.

Student Interest Code
R-I-E

MECHANICAL TECHNOLOGY/ROBOTIC APPLICATIONS PROGRAM

OPTION TO MECHANICAL TECHNOLOGY PROGRAM

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
2 yrs. Mathematics
Machine Shop
Drafting - Blueprint Reading
3 yrs. English (including speech)

Nature of the Work

With a knowledge of manufacturing processes methods, quality control and processing along with an understanding of robots and their controls, an individual, as part of a team, would be involved with defining the task of the robot work cell and develop a plan of implementing the robot work cell. This would include contingency planning, safety, industrial relations and economic considerations.

Employment Possibilities

As a technician, an individual would work with industrial and manufacturing engineering to define, implement and evaluate robot work cell applications.

Employment Outlook

It is a known fact that this nations labor force is decreasing. Competition in the market is becoming more intense and direct labor costs are increasing. With these conditions set, the use of robots and the need for people with an understanding of robot applications will increase greatly from now to the end of the century.

PREREQUISITE TO ENTER PROGRAM:
1. Algebra I and Plane Geometry
2. Mathematics Placement Exam

FIRST YEAR
First Semester

Course No.	Hrs. Cr.
RBA 120-Introduction to Robotics....	3
PC 129-Programming in BASIC........	3
MT 120-Industrial Electricity.......	4
*Mathematics........................	5
HPR 100-Wellness....................	1
	16

Second Semester

Course No.	Hrs. Cr.
DFT 123-Mechanical Blueprint Reading....................	3
MT 122-Manufacturing Processes I...	2
MTL 121-Manufacturing Processes Lab II....................	1
PHY 120-Applied Physics I...........	3
**ENG 124-Communications I............	3
*Mathematics........................	5
	17

SECOND YEAR
First Semester

Course No.	Hrs. Cr.
MT 220-Method and Operation Analysis..................	4
MT 221-Statistics and Quality Control............	3
MT 123-Fundamentals of Numerical Control.................	2
MTL 123-Manufacturing Processes Lab IV....................	1
PHY 121-Applied Physics II..........	3
**ENG 125-Communications II...........	3
Humanities Elective................	1
	17

Second Semester

Course No.	Hrs. Cr.
MT 223-Process Planning............	4
MT 224-Introduction to Fluid Power	4
PSY 220-Human Relations in the World of Work.............	3
RBA 222-Robot Applications Field Project..................	4
	15

Student Interest Code
I-R-C

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* Mathematics: Five semester hours minimum. Minimum competency level will be applied trigonometry. This level may be reached by following either of the two sequences listed below. Initial placement in a sequence will be determined by previous mathematics classes completed and satisfactory score on mathematics placement tests.

MTH 128, MTH 129 or MTH 103, MTH 104 (MTH 105). Students electing the MTH 103, 104 sequence must complete five (5) semester hours of electives to earn a minimum of 65 semester hours.

**ENG 101 and 102 may be substituted for ENG 124 and 125.

MID-MANAGEMENT

(Associate in Applied Science)

SUGGESTED HIGH SCHOOL SUBJECTS:
3 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)

Nature of the Work

Individuals pursuing the AAS Mid-Management program may find employment in a variety of business activities such as finance, data processing, health care organizations, marketing, and manufacturing.

Employment Possibilities

Upon completion of the AAS Mid-Management degree, individuals may secure positions such as manager trainee, insurance trainee, personnel assistant, floor supervisor and production assistant.

Employment Outlook

Due to the broad nature of this program, employment possibilities are excellent both locally and nationally. Employment of mid-managers is expected to grow slightly faster than the average for all occupations through the mid-1990's.

Program Design

Individuals may either enroll as full time day or part time evening students. Courses will be available in both sequences. The full time day student may complete the program in four semesters. The part time evening student will probably require six or more semesters for completion. People presently working in a business-related occupation may wish to complete this degree program to enhance their opportunities for advancement.

First Semester

Course No.	Hrs. Cr.
BUE 103 - Business Math or ACT 121 or ACT 101	3
ECN 203 - Principles of Economics I	3
*CSI/DP/PC Elective	3
*Math or Science Elective	3-5
ENG 124 - Communications I	3
BUE 123 - Keyboarding	1
	16-18

Second Semester

Course No.	Hrs. Cr.
ACT 121 - Fundamentals of Accounting or ACT 101 or ACT 102	3
ECN 204 - Principles of Economics II	3
MKT 101 - Principles of Marketing	3
*Humanities Elective	1-3
ENG 125 - Communications II	3
HPR 100 - Wellness	1
	14-16

Third Semester

Course No.	Hrs. Cr.
BUL 201 - Business Law I	3
MGT 201 - Principles of Management	3
Business Electives	6
General Elective	3
*PC Elective	1
	16

Fourth Semester

Course No.	Hrs. Cr.
BUL 202 - Business Law II	3
MGT 123 - Owning and Operating a Small Business	3
FIN 120 - Principles of Finance	3
Business Electives	6
*PC Elective	1
	16

64 semester hours required for degree.

Student Interest Code
E-S-C

(Continued on Next Page)

Mid-Management (continued) * ELECTIVES:

Math/Science: Any 3 to 5 hour course in math or science meeting the requirements of the A.A.S. degree.
See page 100 of catalog.

Humanities: Any 1 to 3 hour course in the humanities area meeting the requirements of the A.A.S. degree.
See page 100 of catalog.

CSI/DP/PC: Any 3 hour computer science, data processing or personal computing course.

PC Elective: Students will select PC electives from the one (1) hour PC course offerings in Data Base, Spreadsheets, Word Processing, etc. See Personal Computing, Open entry, Open exit, Self-paced courses.

Business Electives are to be selected from the courses below.

ACT 120 - Tax Accounting 3
ACT 201 - Intermediate Accounting I 3
ACT 202 - Cost Accounting 3
ACT 222 - Intermediate Accounting II 3

MGT 221 - Personnel Management . . 3
MGT 222 - Principles of Supervision 3
PSY 220 - Psychology of Human Relations 3

BFC 120 - Principles of Bank Operations 3
BFC 121 - Installment Credit . . . 3
ECN 220 - Money and Banking . . . 3
BFC 122 - Introduction to Commercial Lending . . . 2
BFC 123 - Bank Investments 2
BFC 124 - Analyzing Financial Statements 2
BFC 125 - Bank Accounting. 2
BFC 126 - Law & Banking I. 2
BFC 127 - Law & Banking II 2

INS 120 - Principles of Insurance 3
INS 121 - Life and Health Insurance 3
INS 122 - Property and Casualty Insurance 3

Any computer Science, Data Processing, or Personal Computing course of three (3) or more hours will count toward this group once the first semester CSI/DP/PC elective requirement has been met.

RE 120 - Real Estate Transactions 2
RE 121 - Contracts and Conveyancing 1
RE 122 - Real Estate Principles 1
RE 123 - Real Estate Appraisal . 1
RE 124 - Property Management . . 1
RE 125 - Financing 1

PROFESSIONAL NURSING (R.N.)

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
2 yrs. Science (emphasis on lab sci.)

REGISTERED NURSES are members of the health care profession who help to serve society's interests and needs in the area of health. They focus on the individual and the family unit. Registered nurses are prepared to assess an individual's needs, plan, and intervene to meet those needs with appropriate nursing actions or with prescribed medical treatment.

Additional educational preparation provides the nurse with many and varied opportunities for career advancement in the nursing profession.

NURSING ASSISTANTS provide supportive services to patients under the direction of the professional nursing staff. These services may include bathing, feeding, and assisting with the usual activities of daily living for the patients.

APPLICATION, SELECTION AND ADMISSION FOR NURSING PROGRAMS

1. A currently enrolled student must file a Letter-of-Intent in the Admissions Office between the September 15 and January 1 prior to the Fall semester in which the applicant would expect to enroll in the first Nursing course (NUR prefix). New students must submit an Application for Admission in accordance with the same date parameters.

2. After January 1, status letters will be sent to all applicants confirming the program for which they will be evaluated, and advising as to what materials (if any) are needed to complete the admission file.

3. Minimum standards for admission are the following:
   - A. High School or College transcript, as applicable, must indicate a minimum cumulative average of "C+" (2.5 on a 4.0 scale) for all work attempted.
   - B. Applicants who hold the High School Equivalent Certificate must have a minimum score of 50 on each of the five tests.
   - C. Applicants are to have completed two years of high school lab science, or two semesters of college lab science, or one year of high school lab science and one semester of college lab science with at least a grade of "C". Persons who have taken one or more lab science courses eight or more years ago must demonstrate proficiency in science by successfully completing one semester of a laboratory course. Lab courses in Chemistry, Biology, Physics, Anatomy, Physiology, Microbiology, Zoology, and IVCC's CHM 100 will fulfill the requirement. A combination of Biology and Chemistry is preferred.
   - D. In those years when there are more qualified applicants than spaces available in the program, admission is competitive and selective by use of an objective formula approved by the nursing department.
   - E. All nursing students must be certified in Cardiopulmonary Resuscitation and maintain that certification throughout the nursing program. A-H 126 will meet this requirement.

4. There are additional requirements for admission; see the Director of Admissions, Director of Nursing, or a counselor for complete information regarding admission to the Nursing Program.

(Continued on Next Page)

Nature of the Work

Registered nurses work in a variety of health care settings: hospitals, nursing homes and long term care facilities, home health agencies, doctor's offices or clinics, and industry. The Associate Degree Graduate Nurse (ADN) is prepared to function as a staff nurse. With work experience and additional education, the ADN can expand her employment opportunities to specialty clinical areas such as cardiac care, intensive care, trauma; community health, school nursing, nursing education, or independent practice.

Employment Opportunities

Most registered nurses are employed in hospitals, however, with the changing trends in the health care delivery system and the increased life span, home health agencies, clinics, nursing homes and long term care facilities are offering more opportunities for nurses.

Program Design

The Associate Degree Nursing Program at Illinois Valley Community College qualifies the graduate to take the State Board Examination for licensure in Illinois as a registered professional nurse. The nursing program at Illinois Valley Community College is fully accredited by the National League for Nursing.

The curriculum consists of nursing and support courses from other disciplines. The nursing courses include classes at the college and a variety of experiences in the local hospitals and community health agencies.

See Admission and Selection Process criteria for this program, page 128.

RETENTION, READMISSION, AND PROMOTION

Retention, readmission, and promotion are based upon:

1. Physical and emotional aptitude for nursing.
2. Academic achievement (a grade of "C" or above in Nursing and Allied Health courses, Zoology 107 and 108, and a final cumulative GPA of 2.0 or above is required for promotion and graduation.)
3. Continuance in the Nursing sequence: a student who withdraws from the nursing course sequence at any time will be subject to curriculum revision.
4. Readmission to the program following an absence of more than three years is subject to review by the Director of Nursing.
5. All nursing students who are promoted or proficiency from one semester of nursing courses to another, must have their schedules approved by the Director of Nursing prior to registration. These students should first see a counselor concerning course selection.
6. Students are expected to abide by the "Nursing Student Handbook" given to them the first week of classes.
7. Current CPR Certification is required throughout the nursing program. A-H 126 Cardiopulmonary Resuscitation will meet this requirement.

All non-nursing courses must be taken prior to or concurrently with the nursing courses with which they are listed in the curriculum pattern. Although the program is designed to be completed in four semesters, many students find it advisable to complete at least six hours of the general education requirements prior to enrollment in Nursing 121.*

*Counselors will advise regarding other options if a student is unable to complete the program in the two year time period.

Student Interest Code
S-A-I

(Continued on Next Page)

ASSOCIATE IN APPLIED SCIENCE DEGREE IN NURSING

First Semester - Level I

Course No.	Hrs. Cr.
*NUR 121 - Fundamentals of Nursing I	3
*NUR 122 - Fundamentals of Nursing II	3
NUR 123 - Theories and Concepts Basic to Nursing	2
A-H 120 - Introduction to Health Science	3
A-H 122 - Human Growth and Development for Health Workers	3
ZOO 107 - Anatomy and Physiology I	4
	18

Second Semester - Level II

Course No.	Hrs. Cr.
*NUR 124 - Nursing Care of Children	3
*NUR 125 - Nursing Care of the Childbearing Family	3
ZOO 108 - Anatomy and Physiology II	4
PSY 100 - General Psychology	3
SOC 100 - Introduction to Sociology	3
	16

Third Semester - Level III

Course No.	Hrs. Cr.
*NUR 220 - Holistic Physical and Mental Nursing I	5
*NUR 221 - Holistic Physical and Mental Nursing II	5
ENG 101 - English Composition I	3
Humanities Electives	3
	16

Fourth Semester - Level IV

Course No.	Hrs. Cr.
*NUR 222 - Holistic Physical and Mental Nursing III	5
*NUR 223 - Holistic Physical and Mental Nursing IV	5
NUR 224 - Issues in Professional Nursing	2
*ENG 102 - English Composition II	3
	15

*Courses are planned in a modular system - each course is 8 weeks in length.

If all related courses and Level I are completed, the student may enroll in Level II, III, or IV modules.

Since the concepts of health and wellness presented in the nursing program are similar to those in the course HPR 100 - Wellness, students completing the Associate in Applied Science Degree in Nursing are exempt from the Health, Physical Education, and Recreation requirement of the Associate of Applied Science Degree.

SUSAN STACHOWICZ RUPPERT
Nurse Practitioner Teacher
Methodist Hospital
Houston, Texas

"IVCC provided me with a solid educational foundation which encouraged and enabled me to achieve advanced academic degrees and pursue a successful professional career in nursing. IVCC provides members of the community with the opportunity to obtain quality education. The high degree of student-faculty interaction is a definite asset."

NURSING ASSISTANT

Nature of the Work

The Nursing Assistant performs a variety of supportive duties to care for sick and injured people such as: answer the patients' bell calls, deliver messages, serve meals, feed patients who are unable to feed themselves, make beds, and bathe and dress patients. Nursing assistants work under the direction and supervision of the registered or licensed practical nurse.

Employment Possibilities

Graduates of the Nursing Assistant program would qualify for employment opportunities with the following titles: Orderly, Nursing Aide, Nursing Attendant, Hospital Attendant, Auxiliary Nursing Worker, Geriatric Aide, and Psychiatric Aide (in mental institutions).

The program meets the requirements and guidelines for recognition and approval by the State of Illinois Department of Public Health for certification.

Employment Outlook

Employment opportunities continue to exist especially in nursing homes and home health agencies. The program meets the requirements and guidelines for recognition and approval by the State of Illinois Department of Public Health for certification.

Admission to the program on this page does not follow the same calendar as other degree and certificate programs. Starting dates will be announced in area newspapers two or three times a year.

A grade of "C" or better is required in all courses to receive the certificate.

Program Design

The Nursing Assistant Curriculum will consist of a 5 credit hour Certificate Program. The two courses making up the 5 credit hours will both be offered in the same semester to allow the student to complete the program within that semester. People that are presently working as Nursing Aides without formal educational training may enroll in the program.

Course No.	Hrs. Cr.
A-H 124 - Basic Nursing Concepts and Skills..	4
A-H 125 - Supervised Practice...	1
	5

Student Interest Code
S-A-I

LICENSED PRACTICAL NURSE CERTIFICATE

Because of the decreased economic opportunities for the Licensed Practical Nurse, the Licensed Practical Nurse Certificate will not be offered for a period of two years, beginning the Fall Semester of 1985. After this period, an evaluation of need will be made to determine if the suspension is to continue or if the certificate will be reinstated.

RETAILING/MERCHANDISING CERTIFICATE

This program is for students wishing to pursue a career in Marketing after one year of study at IVCC. The program is specifically designed to prepare students for work in a retail environment.

FIRST SEMESTER		SECOND SEMESTER	
BUE 101 - Intro to Business. . .	3	ACT 121 - Fund of Acct.	3
BUE 103 - Business Math.	3	BUL 201 - Bus Law I	3
PC 128 - Bus. Micro Systems . .	3	ECN 203 - Prin of Econ I.	3
MKT 101 - Prin of Marketing. . .	3	MKT 122 - Salesmanship.	3
ENG 124 - Communications I . .	3	MKT 223 - Retailing.	3
	15		15

ENG 101 may be substituted for ENG 124.
ACT 101 may be substituted for ACT 121.
ECN 122 may be substituted for ECN 203

SUGGESTED HIGH SCHOOL PREPARATION:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt/econ
3 yrs. Math (including computer usage)

DAN WOJCIECHOWSKI
Technical Staff
AT&T Bell Laboratories
Electrical Engineering Major at Univ. of Ill.

"The instructors of the math and physical sciences department at IVCC were by far some of the best I have encountered in my college career. (At the University of Illinois) I found myself more than adequately prepared in the basic sciences."

Student Interest Code
E-S

SECRETARIAL SCIENCE
(Associate in Applied Science)

SUGGESTED HIGH SCHOOL PREPARATION:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt/econ
3 yrs. Math (including computer usage)

Nature of the Work

The efficiency of any organization depends upon secretaries and stenographers, who are the center of communications within their firm. They transmit information to the staff and to persons in other organizations. Although most secretaries type, take shorthand, and deal with callers, the time spent on these duties varies in different types of organizations.

In offices where dictation and typing are handled in word processing centers, administrative secretaries handle all other secretarial duties.

Training, Other Qualifications and Advancement

Many employers prefer applicants who have additional secretarial training at a college. A knowledge of spelling punctuation, and grammar and a good vocabulary are essential. Employers look for persons who are poised and alert, and who have pleasant personalities.

Employment Outlook

Employment of secretaries is expected to increase about as fast as the average for all occupations through the mid-1990's due to the steadily growing need to process information.

Program Design

This curriculum, leading to an Associate in Applied Science Degree, is designed to provide a high degree of communications, typing, shorthand, and word processing skills.

This comprehensive program will give students the option to work in these specialized areas during the internship phase of the program.

FIRST YEAR

First Semester

Course No.		Hrs. Cr.
BUE 101	Introduction to Business	3
BUE 103	Business Mathematics	3
BUE 125	Shorthand I	4
ENG 101	English Composition	3
WPR 120	Fundamentals of Office Systems	2
HPR 100	Wellness	1
		16

Second Semester

Course No.		Hrs. Cr.
BUE 126	Shorthand II	4
BUE 128	Typewriting II	2
BUE 222	Business Communications	3
*ACT 121	Fundamentals of Accounting	3
WPR 122	Word Processing Applications	2
SPH 101	Fundamentals of Speech	3
		17

SECOND YEAR

First Semester

Course No.		Hrs. Cr.
BUE 220	Advanced Typewriting	2
BUE 224	Office Procedures & Administration	3
BUE 227	Secretarial Internship	3
PC 129	Programming in BASIC	3
WPR 121	Word Processing I	2
WPR 123	Advanced Text Editing	2
		15

Second Semester

Course No.		Hrs. Cr.
ECN 203	Principles of Economics I	3
BUE 228	Professional Typing or	
WPR 124	Records Processing and File Design or	
WPR 125	Information Processing	2
BUL 201	Business Law I	3
MGT 201	Principles of Management	3
BUE 229	Secretarial Internship	3
Humanities Elective		2
		16

Student Interest Code
C-S-A

*ACT 101 may be substituted for ACT 121

WORD PROCESSING
(Certificate)

Nature of the Work

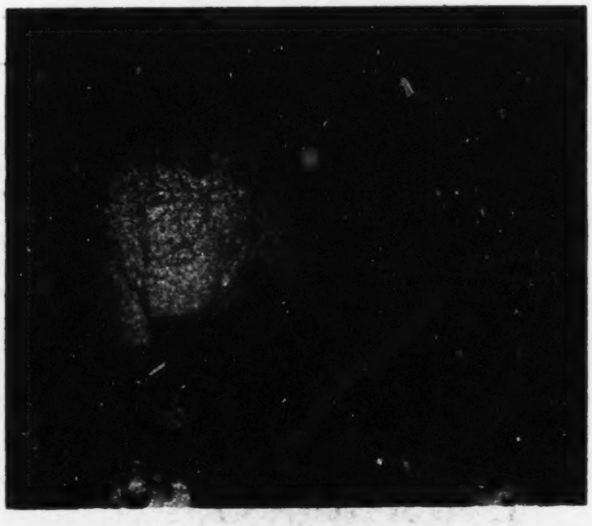
A rapid flow of written communication is essential to the modern office. To facilitate the communication process, business has developed word processing centers. Trained operators of Video Display Terminals handle transcription and typing for several departments. These operators produce letters and reports on high-speed typing machines from material stored on magnetic medium. They eliminate a great deal of retyping because they make corrections before producing a final copy.

Training, Other Qualifications

Word processors need good spelling, punctuation and grammar skills. They also need to be excellent typists before training on either microcomputers with word processing software or dedicated word processors. They should have at least a high school diploma and advanced training in the word processing area.

Employment Outlook

Employment of trained word processors is expected to increase faster than the average for all occupations through the 1990's.



PROGRAM DESIGN-WORD PROCESSING CERTIFICATE

This curriculum, leading to a word processing certificate, is designed to provide personnel with a general understanding of the word processing concept as it applies to modern business as well as providing entry-level skills on VDT equipment and machine transcription. The program also includes a review of grammar, punctuation, and spelling.

COURSE REQUIREMENTS

ENG 125	Communications II . . .	3
ENG 120	Grammar for Transcription	2
WPR 120	Fundamentals of Office Systems	2
WPR 121	Word Processing I . . .	2
WPR 122	Word Processing Applications	2
WPR 123	Advanced Text Editing .	2
PC 129	Programming in BASIC .	3
		16

G.P.A. requirement of 2.0 for graduation.

STEVEN FUNFSINN, Automobile Technician
Bill Vogel Chevrolet
LaSalle, Illinois

"IVCC laid the groundwork for a start in the automobile repair field with good training in the fundamentals of understanding the computerized engine controls used on the vehicles of today. The equipment being used at IVCC right now is the latest in diagnostic technology. A person attending IVCC is trained on equipment they would expect to use in the everyday jobs of the modern automobile technician.

WORD PROCESSING SYSTEMS MANAGEMENT

(Certificate)

Program Design

The word processing systems management certificate incorporates all of the concepts an entry-level operator will need as well as advanced concepts of systems management on shared-logic equipment and records processing. It places increased emphasis on the communications skills and the math skills needed in higher-level word processing positions available in the business community.

Chuck George of Peru was the 1986 winner of the John Strell Award, established to honor multiple sport sophomore male student athletes at IVCC. Bill Uebel presents the award to George along with members of the selection committee (from left) Bob Walsh, Vince McMahon, Rollie Morris, and Bill Vlastnik.

Course No.		Hrs. Cr.
Summer Session		
WPR 121	Word Processing I	2
WPR 122	Word Processing Applications	2
ENG 120	Grammar for Transcription	2
		6
Fall Semester		
WPR 123	Advanced Text Editing	2
WPR 120	Fundamentals of Office Systems	2
ENG 101	Composition I	3
BUE 103	Business Math	3
ACT 121	Fundamentals of Accounting	3
PSY 220	Human Relations	3
		16
Spring Semester		
*WPR 124	Records Processing & File Design	2
**WPR 125	Information Processing & Systems Administration	2
BUE 222	Business Communications	3
PC 129	Programming in BASIC	3
SPH 101	Speech	3
		13
	Total Credit Hours	35

*Prerequisite WPR 123

G.P.A. requirement of 2.0 for graduation.

COOPERATIVE AGREEMENTS WITH OTHER COMMUNITY COLLEGE DISTRICTS

There are a number of one and two-year and certificate educational programs that IVCC does not offer to students within its district. Cooperative agreements with other community college districts now allow students from Community College District 513 to select one of the following programs and to attend the program at the in-district tuition rate in effect the college selected.

In some programs, part of the course work is taken at IVCC and some at the other college involved. Other programs must be taken in total at the community college offering the program.

The cooperating college will issue the degree or certificate for successful completion of the program of study. (Students must apply at least 30 days prior to the start of classes.)

ELGIN COMMUNITY COLLEGE (Write: Admissions, Elgin, Illinois)

- Graphic Design (Degree)
- Heating, Air Conditioning, and Refrigeration (Certificate and Degree)
- Hospitality Management-Restaurant Management (Degree)
- Hospitality Management-Culinary Arts) (Degree)
- Human Services (Certificates & Degrees)
  - All Options
    - Child in Youth Advocacy
    - Gerontology and Mental Health
    - Group Child Care
    - Juvenile Corrections
    - Mental Health Generalist
    - Substance Absue Counseling
    - Foster Care
    - Group Home Care
    - Travel/Tourism
- Medical Transcriber (Cert. and Degree)
- Welding (Certificate and Degree)

KISHWAUKEE COLLEGE (Write: Admissions Office, Malta, Illinois)

- Aboriculture/Tree Surgery (Certificate)
- Auto Body (Certificate & Degree)
- Floral Design and Merchandising (Certificate and Degree)
- Floral Horticulture (Certificate)
- Garden Center Operations (Certificate)
- Golf Course and Turf Management (Certificate and Degree)
- Greenhouse Management (Degree)
- Nursery Management and Landscape Design (Certificate and Degree)
- Ornamental Horticulture (Degree)
- Park and Grounds Maintenance (Certificate)
- Radiologic Technology (Degree)
- Water Quality Control (Certificate and Degree)
- Welding (Certificate)

JOLIET JUNIOR COLLEGE (Write: Admissions Office, Joliet, Illinois)

- Construction Technology (Certificate and Degree)
- Culinary Arts (Certificate and Degree)
- Fashion Merchandising (Cert. and Degree)
- Horticulture (Certificate and Degree)
- Hotel-Restaurant Management (Certificate and Degree)
- Interior Design (Degree)
- Library and Media Aide (Certificate and Degree)
- Occupational Safety (Certificate and Degree)
- Special Education Aide (Certificate and Degree)
- Teacher Aide (Certificate and Degree)

KANKAKEE COMMUNITY COLLEGE (Write: Admissions Office, Kankakee, Illinois)

- Air Conditioning & Refrigeration (Certificate and Degree)
- Cosmetology (Certificate)
- Medical Laboratory Technician (Degree)
- Radiologic Technology (Degree)
- Respiratory Care Technology (Certificate)
- Welding (Certificate & Degree)

ROCK VALLEY COLLEGE (Write: Admissions Office, Rockford, Illinois)

- Aviation Maintenance Technology (Certificate and Degree)
- Banking & Finance (Certificate & Degree)
- Savings and Loan (Certificate & Degree)
- Building Construction Technology (All Certificates and Degrees)
- Human Services (Certificate and Degree)
- Instrument Pilot (Certificate)
- Library/Media Technical Assistant (All Certificates and Degrees)
- Occupational Safety & Health Technology (All Certificates and Degrees)
- Pilot Maintenance (Certificate)
- Materials Management/Purchasing Option (Certificate and Degree)
- Quality Assurance (All Certificates and Degrees)
- Recreational Leadership (All Certificates and Degrees)
- Respiratory Therapy (Degree) and Respiratory Care (Certificate)
- Safety & Health Management (Certificate)

SAUK VALLEY COLLEGE (Write: Admissions Office, Dixon, Illinois)

- Auto Body (Certificate)
- Building Maintenance Specialist (Cert.)
- Cosmetology (Certificate)
- Heating, Refrigeration, Air Conditioning and Solar Energy (Certificate and Degree)
- Human Services (Degree-All Options)
- Medical Laboratory Technology (Degree)
- Quality Control (Certificate)
- Radiologic Technology (Degree)
- Statistical Quality Assurance (Cert.)

WAUBONSEE COMMUNITY COLLEGE (Write: Director of Admissions, Sugar Grove, Illinois)

- Auto Body (Certificate)
- Environmental Control Technology (Certificate and Degree)
- Interpreter Training (All Certificates and Degrees)
- Legal Transcription (Certificate)
- Travel/Tourism (Certificate)

FOR MORE INFORMATION CONTACT THE ADMISSIONS OFFICE
AT IVCC OR ANY OF THE ABOVE COMMUNITY COLLEGES.

COOPERATIVE
AGREEMENT
PROGRAM

MEDICAL LABORATORY TECHNICIAN

[1]This is a Cooperative Program with Sauk Valley College of Dixon, Illinois.

This program is conducted under a joint educational agreement between Illinois Valley Community College and Sauk Valley College. The student needs to make application to both Illinois Valley Community College and Sauk Valley College for admission to the Medical Laboratory Technician program.

SUGGESTED HIGH SCHOOL SUBJECTS:
4 yrs. English (including speech)
3 yrs. Soc. Studies (history/govt.)
3 yrs. Math (including computer usage)
3 yrs. Science (emphasis on lab sci.)

Nature of the Work

The increased work load imposed on clinical laboratories has caused a burden on the Registered Medical Technologist. In order to free the Medical Technologist of routine duties, the Medical Laboratory Technician is becoming the production worker in the laboratory. Freedom from routine will release the Medical Technologist to function in an administrative, educational or supervisory capacity. A person with minimum skills obtained through a structured course of study for laboratory technicians is necessary for good patient care.

Upon successful completion of the five semester program, the student is awarded an Associate in Applied Science degree. This qualifies the graduate to take the National Certifying examination required by the American Society of Clinical Pathologists. The graduate may then use the title MLT(ASCP).

Program Design

This program is designed to give a student a choice of two plans, outlined on the following pages.

Student Interest Code
I-S-A

(Continued on Next Page)

Medical Laboratory Technician (Cont'd.)

PLAN I

FIRST YEAR

Summer Session

Course No.	Hrs. Cr.
*English 124 - Communications I or English 101 - Composition I	3
*ZOO 107 - Anatomy & Physiology	4
	7

First Semester

Course No.	Hrs. Cr.
*Chemistry 104 - Chemistry or *Chemistry 106 - General Chemistry	4-5
*Humanities Elective	3
*ENG 125 - Communications II or *ENG 102 - English Composition II	3
**HEA 150 - Orientation to the Medical Laboratory	2
*BOT 109 - Microbiology	4
	16-17

Second Semester

Course No.	Hrs. Cr.
*Chemistry 106 or 107 - General Chemistry	5
+Health 151 - Medical Laboratory Science I	3
+Chemistry 104 - Introduction to Science Instrumentation	3
*Zoology 108 - Anatomy & Physiology II	4
+Health 193 - Technical Nursing	2
	17

SECOND YEAR

Summer Session

Course No.	Hrs. Cr.
+Health 155 - Medical Laboratory Science II	8

Third Semester

Course No.	Hrs. Cr.
+Health 160 - Medical Laboratory Science III	4
+Health 167 - Microbiology for Medical Laboratory Students	5
+Health 168 - Medical Laboratory Science IV	5
*Math Elective	3
	17

Fourth Semester

Course No.	Hrs. Cr.
++Health 170 - Medical Laboratory Practicum	8
+Social Science Elective	3
	11

(SEE PLAN II NEXT PAGE)

CHECK IVCC COLLEGE CATALOG FOR COURSE PREREQUISITES

Medical Laboratory Technician (Cont'd.)

PLAN II

Summer Session

Course No.	Hrs. Cr.
*Zoology 107 - Anatomy & Physiology	4

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
*Chemistry 104 or 106 - General Chemistry	4-5
*English 124 - Communications I or English 101 - Composition I	3
*Botany 109 - Microbiology	4
**HEA 150 - Orientation to the Medical Laboratory	2
Social Science Elective	3
	16-17

Second Semester

Course No.	Hrs. Cr.
*Chemistry 106 or 107 - General Chemistry	5
*Humanities Elective	3
*Zoology 108 - Anatomy & Physiology II	4
*English 102 - Composition II or *English 125 - Communications II	3
	15

Summer Session

Course No.	Hrs. Cr.
+Chemistry 104 - Introduction to Scientific Instrumentation	3
+Health 151 - Medical Laboratory Science I	3
	6

SECOND YEAR

Third Semester

Course No.	Hrs. Cr.
+Health 155 - Medical Laboratory Science II	8
*MTH Elective	3
	11

Fourth Semester

Course No.	Hrs. Cr.
+Health 160 - Medical Laboratory Science III	4
+Health 167 - Microbiology for Medical Laboratory Students	5
+Health 168 - Medical Laboratory Science IV	5
+Health 193 - Technical Nursing	2
	16

Summer Session

Course No.	Hrs. Cr.
++Health 170 - Medical Laboratory Practicum	8

* Indicates courses taught at IVCC.

+ This course will be taken at Sauk Valley College

++ This course will be taken through Sauk Valley College but the students will be attending classes at a hospital within the Illinois Valley Community College district 8 hours per day Monday thru Friday.

** Will be taught at a hospital in IVCC district.

RADIOLOGIC TECHNOLOGY[1]

COOPERATIVE
AGREEMENT
PROGRAM

[1] This is a Cooperative Program with Sauk Valley College of Dixon, Illinois.

This program is conducted under a joint educational agreement between Illinois Valley Community College and Sauk Valley College. The student needs to make application to both Illinois Valley Community College and Sauk Valley College for admission to the Medical Radiography program.

FIRST YEAR

First Semester

Course No.	Hrs. Cr.
*ZOO 107 - Anatomy and Physiology I	4
+Health 194 - Introduction to Radiologic Technology	5
+Psychology 100 - Orientation	1
+Health 184 - Radiologic Technology Clinical Experience I	3
+Health 193 - Technical Nursing	2
	15

Second Semester

Course No.	Hrs. Cr.
*ENG 101 - English Composition I or ENG 124 - Communications I	3
+Health 185 - Radiologic Technology Clinical Experience II	3
*MTH 101, 102, 103, 104, or 200 or 201	3-5
Health 195 - Intermediate Radiologic Technology	5
	14-16

Summer Session

Course No.	Hrs. Cr.
+Health 186 - Radiologic Technology Clinical Experience III	2
+Health 196 - Electricity for Radiologic Technologists	2
*Social Science Elective	3
	7

PROGRAM DESIGN

This program has been designed to prepare men and women for careers as a Radiologic Technologist. Although technological advancements in the radiographic sciences have created a demand for more technically proficient personnel, patient service remains the primary objective of the Radiologic Technologist. The program meets the challenges of the technology with a curriculum that exceeds the guidelines established by the American Medical Association's Council on Medical Education. The graduates from this program are eligible to write the National Certification Examination administered by the American Registry of Radiologic Technologists.

SECOND YEAR

First Semester

+Health 197 - Ionizing Radiation in Medicine	4
+Health 294 - Quality Control in Radiography	3
+Health 284 - Radiologic Technology Clinical Experience IV	4
*Humanities Elective	3
	14

Second Semester

*ENG 102 - English Composition II or ENG 124 - Communications II or SPH 101 - Fundamentals of Speech	3
+Health 285 - Radiologic Technology Clinical Experience V	4
+Health 295 - The Radiology Department	3
+Health 296 - Survey of Disciplines Allied to Radiology	4
	14

Summer Session

Health 286 - Radiologic Technology Clinical Experience VI	3
+Health 297 - Advanced Radiologic Technology Seminar	2
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*Indicates course taught at Illinois Valley Community College.
+Indicates courses taught at Sauk Valley College.

Student Interest Code
I-R-S

COURSE DESCRIPTIONS

THE FOLLOWING PAGES OUTLINE THE COURSE DESCRIPTION OF EACH OF THE CREDIT COURSES OFFERED BY IVCC. THEY ARE PRESENTED IN AN ALPHABETICAL ORDER BEGINNING WITH:

ACCOUNTING . . . .
AGRICULTURE. . . . .
ALLIED HEALTH. . . . . .

AND ENDING WITH:

WELDING. . . . .
WORD PROCESSING. . . . .
ZOOLOGY. . . . .

COURSE NUMBERING SYSTEM

ALL COURSES CARRY A THREE DIGIT NUMBER.

(1) THE FIRST DIGIT INDICATES FRESHMAN OR SOPHOMORE LEVEL: 1 OR 2. A FIRST DIGIT OF 0 SIGNIFIES A REMEDIAL-DEVELOPMENTAL REVIEW OF BASIC SKILLS COURSES.

(2) THE MIDDLE DIGIT SIGNIFIES THE CURRICULUM AREA THE COURSE IS ASSIGNED TO:

0 = BACCALAUREATE (TRANSFER)
1 = CONTINUING EDUCATION
2 = OCCUPATIONALLY ORIENTED
9 = GENERAL STUDIES (THESE COURSES DO NOT GENERATE CREDIT WHICH MAY BE APPLIED TO ANY DEGREE OR CERTIFICATE.)

FOLLOWING EACH COURSE DESCRIPTION IS AN INDICATION OF THE SEMESTER OR TERM IN WHICH THE COURSE IS NORMALLY OFFERED, SUBJECT TO MINIMUM CLASS SIZE REQUIREMENTS. THERE IS NO COMMITMENT TO OFFER ANY COURSE UNLESS STUDENT ENROLLMENTS IN THAT COURSE OR SECTION MEET ESTABLISHED MINIMUM STANDARDS.

F = FALL
SP = SPRING
SU = SUMMER
V = VARIABLE ENTRY/EXIT, INDIVIDUALIZED INSTRUCTION: CONTACT THE STUDENT RECORDS OFFICE FOR REGISTRATION INFORMATION.

ACCOUNTING

ACT 101. Financial Accounting

An introduction to financial accounting as an information processing system that communicates relevant financial data regarding the business entity to external decision makers. Emphasizes the basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation, interpretation, and use.

PREREQUISITE: Sophomore standing with a 2.0 g.p.a., or completion of one year of high school accounting, or completion of ACT 121 with a grade of B or better.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ACT 102. Managerial Accounting

Course deals with basic managerial accounting concepts and practice including classification of costs, cost-volume-profit relationships, manufacturing costs, job order and process cost systems, budgeting, standard costs and variance analysis, direct and absorption costing, cost allocation, decentralized operations, pricing decisions, capital budgeting, financial statement analysis, and statement of changes in financial position.

PREREQUISITE: ACT 101.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ACT 120. Tax Accounting

The course is intended for students that seek to file business and personal tax returns. Such topics as methods of payment of tax liability, recognition of gains and losses, capital gains and losses, dividends, inventories, and depreciation will be covered.

PREREQUISITE: ACT 101.
CREDIT: Three semester hours.
OFFERED: SP

ACT 121. Fundamentals of Accounting

Emphasis is placed on the procedural aspects of financial accounting for a sole proprietorship. The accrual basis is used, debit and credit is studied as it relates to the accounting equation. The entire accounting cycle is covered for both service and merchandising businesses, including adjustments, preparation of financial reports, and closing procedures. Also included are bank statement reconciliation, petty cash, special journals, and payroll accounting. A practice set is included at the end of the course to review the entire accounting cycle. Intended for students who plan to take only one semester of accounting or for those who need preparation before enrolling in ACT 101.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ACT 123. Accounting Procedures on a Microcomputer

Course deals with the implementation of a realistic computerized accounting system on a microcomputer. The accounting system will include a general ledger, an integrated accounts receivable and payable system, a payroll system and a fixed asset depreciation system. Lecture, one-half hour per week; lab, one hour per week.

PREREQUISITE: One semester of college accounting.
CREDIT: One semester hour.
OFFERED: F, SP

ACT 124. Tax Preparation Practicum

This course provides an opportunity for practical application of Tax Accounting 120. After completing 18 hours of classroom work, the students spend 40 hours (4 hours per week) as tax preparers in the Volunteer Income Tax Assistance (VITA) program conducted under the auspices of the federal government. This program provides free tax preparation assistance to low income, elderly, non-English speaking and handicapped taxpayers.

PREREQUISITE: Concurrent enrollment in ACT 120.
CREDIT: One semester hour.
OFFERED: SP

ACT 201. Intermediate Accounting

A study of the theory, concepts and procedures underlying the preparation of external accounting reports for corporate organizations. Topics to be covered include financial statement preparation, monetary assets, inventories, plant assets, current liabilities, intangibles, and time value of money concepts.

PREREQUISITE: ACT 102.
CREDIT: Three semester hours.
OFFERED: F

ACT 202. Cost Accounting

A study of the process of generating accounting data which will be useful to management in performing the functions of planning and control, and decision making. Topics emphasized include product costing: cost, volume, profit relationships, budgeting and standard costs.

PREREQUISITE: ACT 102.
CREDIT: Three semester hours.
OFFERED: F

ACT 221. Accounting for Non-Business Organizations

This course covers the basic accounting concepts and methods related to non-profit and governmental agencies such as municipal governments, hospitals, and schools. Topics covered include accounting and reporting capabilities, fund accounting systems, governmental funds, proprietary funds, fiduciary funds, accounting for fixed assets and long-term liabilities, valuation and depreciation of assets, accrual basis, budgets, interfund transfers, and financial reports. This course is recommended for students who plan to work with governmental agencies, hospitals, or schools - either directly or indirectly. It is also recommended for anyone serving in an elected capacity on a local board or as a treasurer.

PREREQUISITE: ACT 101
CREDIT: One semester hour.
OFFERED: SP

ACT 222. Intermediate Accounting II

Continuation of Intermediate Accounting I, dealing with theory and concepts of external reporting. This course focuses upon the estimation and reporting of financial information to "parties" with a vested interest in corporate organizations. Comprehensive treatment of assets, liabilities, capital stock, retained earnings, error correction, analysis of financial statements, statement of changes in financial position, income taxes.

PREREQUISITE: ACT 201.
CREDIT: Three semester hours.
OFFERED: SP

ACT 224. Payroll Accounting

This course is designed to prepare students to handle payroll preparation and record keeping as well as computation, payment, and reporting of payroll related taxes. Various other business taxes are covered including sales tax and use tax.

PREREQUISITE: ACT 101
CREDIT: One semeter hour.
OFFERED: SP

ACT 226. Internal Auditing

Theory, design, and application of internal auditing procedures and activities. An internal auditor is an employee of a firm who functions in a staff capacity, seeking high level control over the organization activities.

PREREQUISITE: ACT 201
CREDIT: One semester hour.
OFFERED: SP

ACT 227. Accounting Internship

A practicum where students will be employed by business in an accounting related position. In addition to strengthening the student's understanding of accounting principles and procedures, the internship will enable the student to gain an insight into the total operation of a business. After having completed the internship, the student should be able to enter the job market at the assistant accountant or accountant level. Fifteen hours work per week required by the intern.

PREREQUISITE: Twenty-eight hours in accounting program to include ACT 101, ACT 102, and ACT 120.
CREDIT: Three semester hours.
OFFERED: SP

ADULT LEARNING CENTER

ABE 090-097. Adult Basic Education

Instruction in basic reading, writing, and mathematics is provided in a classroom setting off-campus and on an individualized basis in the Adult Learning Center. Eight curriculum components provide a continuum of instructional processes for the developmental adult student who plans to achieve personal educational goals or continue for the GED. Grade is not included in the g.p.a. for graduation.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F,SP at extension sites; Students may enroll on-campus any day the college is open for classes.

ESL 090-097. English as a Second Language

Offered in a classroom setting on-campus and at extension sites, the ESL component of the Adult Education program focuses on improvement of listening, speaking, reading, and writing skills for non-native English speakers. Beginning, intermediate, and advanced levels of instruction are provided through eight curriculum components. Grade is not included in the g.p.a. for graduation.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F,SP at extension sites; F, SP, S on campus

GED 090. General Educational Development Content Survey

A survey course with a lecture format designed for educationally mature persons who wish to prepare for the GED and earn the High School Equivalency Certificate. The five disciplines of writing skills, social studies, science, literature, and math plus preparation for the Constitution test will be covered. The official GED examination is administered at Illinois Valley Community College to individuals who are eighteen years of age and whose high school class has graduated. The course is graded pass/fail. This grade is not computed in the g.p.a. for graduation.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP and on demand at extension centers only

GED 090. General Educational Development

These individual one-credit course modules are designed for educationally mature persons who wish to prepare for the GED test and earn the High School Equivalency Certificate. Delivery of instruction is on an individualized open-entry/open-exit system in the Adult Learning Center on-campus. The five disciplines of writing skills, social studies, science, literature, and math are divided into specific course modules, each course module may be taken in or out of sequence to meet the individual needs of a student. Students may enroll and participate in this program on any day that the College is open for classes. The official GED examination is administered at Illinois Valley Community College to individuals who are 18 years of age and whose high school class has graduated. All course modules are graded pass/fail. This grade is not computed in the g.p.a. for graduation.

GENERAL WRITING SKILLS

A series of course modules providing instruction and drill in essential categories of English expression necessary to upgrade student performance level suited to high school equivalency. An individualized assessment of the student will determine placement in one or more of these modules which may be taken in or out of sequence.

GWS 090. Spelling and Vocabulary
GWS 091. Capitalization and Punctuation
GWS 092. Grammar and Usage
GWS 093. Sentence Structure
GWS 094. Logic and Organization

PREREQUISITE: None
CREDIT: One semester hour per module
OFFERED: Students may enroll any day the College is open for classes

GENERAL SOCIAL STUDIES

These course modules are designed to provide instruction and drill in the various reading skills necessary to upgrade student performance level to a point suited to high school equivalency. A content survey of history, economics, geography, political science, and behavioral science subject matter is also provided to expand the student's general knowledge of social science. An individualized assessment of the student will determine placement in one or more of these modules.

GSS 091. Social Studies: Reading Skills

GSS 091. Social Studies: Content Survey

PREREQUISITES: None
CREDIT: One semester hour per module
OFFERED: Students may enroll on any day the College is open for classes

GENERAL NATURAL SCIENCES

These course modules are designed to provide instruction and drill in the various reading skills necessary to upgrade student performance level to a point suited to high school equivalency. A content survey of biology, chemistry, physics, and earth science subject matter is also provided to expand the student's general knowledge of natural science.

GNS 090. Natural Science/Reading Skills

GNS 091. Natural Science/Content Survey

PREREQUISITE: None
CREDIT: One semester hour per module
OFFERED: Students may enroll on any day the College is open for classes

GENERAL LITERACY SKILLS

These course modules are designed to provide instruction and drill in the various reading skills necessary to upgrade student performance level to a point suited to high school equivalency. A content survey of practical reading, general reading, prose, poetry, and drama is also provided to expand the student's general knowledge of literature. An individualized assessment of the student will determine placement in one or more modules.

GLS 090. General Literary Skills/Reading Skills

GLS 091. General Literary Skills/Content Survey

PREREQUISITE: None
CREDIT: One semester hour per module
OFFERED: Students may enroll on any day the College is open for classes

GENERAL MATHEMATICS SKILLS

A series of course modules providing instruction and drill in essential categories of mathematics necessary to upgrade student performance level to a point suited to high school equivalency. All modules incorporate use of word problems, graphs, and measurement. An individualized assessment of the student will determine placement in one or more of these modules which may be taken in or out of sequence.

GMS 090. Whole Numbers
GMS 091. Fractions
GMS 092. Decimals
GMS 093. Percentages
GMS 094. Algebra
GMS 095. Geometry

PREREQUISITE: None
CREDIT: One semester hour per module
OFFERED: Students may enroll on any day the College is open for classes

LIFE SKILLS TRAINING

These courses are designed to provide 10 contact hours of training in areas of personal development which will assist the student in his/her interaction with the community at large, educational institutions, employers, and local agencies. All courses are graded pass/fail. This grade is not computed in the g.p.a. for graduation.

LST 090. Job Seeking Skills

LST 091. Employability Marketing (Prerequisite: LST 090)

LST 092. Job Interview Techniques (Prerequisite: LST 091

LST 096. Constitution Test Preparation

LST 098. Citizenship Skills Preparation

PREREQUISITE: None unless specified.
CREDIT: One semester hour per module.
OFFERED: On demand

AGRICULTURE (EQUINE)

AGE 122. Horse Health Care and First Aid

A study of the prevention and control of horse disease, parasites, and physiological disorders. Procedures for treatment of common horse injuries will be studied and demonstrated.

PREREQUISITE: None
CREDIT: Two semester hours
OFFERED: V

AGE 123. Horse Breeding and Genetics

This course is designed to familiarize students with mare and stallion basic anatomy, reproductive physiology, hormone systems, basic genetics, behavior, and management. In addition, such current information as estrous cycle control, semen collection and evaluation will be discussed.

PREREQUISITE: None
CREDIT: Two semester hours
OFFERED: SP

AGE 125. Basic Horse Handling and Training Techniques

This course is designed to cover basic training techniques used to develop the young horse. Topics include gentling the foal, teaching the foal to lead, grooming and trimming techniques, the lounge line, bitting, ground driving, training equipment and aids, riding the two-year-old, working circles, and developing the responsive mount. Time will be allowed for students to have a hands-on experience with their own or borrowed horse.

PREREQUISITE: None
CREDIT: Two semester hours
OFFERED: F

AGRICULTURE (AGRI-BUSINESS)

AGR 100. Introduction to Field Crop Science

An introductory course in field crop production dealing with origin, taxonomy, classification, morphology, physiology and ecological basis of growth, reproduction improvement and utilization of corn, soybean, small grain, storage principles, field crop production hazards. Lecture, two hours per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

AGR 101. Introductory Agricultural Economics

This course is to develop an understanding of the role of agriculture in the U.S. and world economics. Also to develop a basic understanding of principles of economics and their application to agriculture problems.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

AGR 102. Introduction to Agriculture Mechanics

This course is designed to introduce students to the various aspects of agricultural mechanics. Special emphasis will be placed upon farm surveying, agriculture structures, rural electrification, and farm power and machinery. The content of this course is chosen to given an overview of several technical areas that comprise agricultural mechanization.
Lecture, one hour per week; seminar, one hour per week; lab, four hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

AGR 103. Animal Science

This is a one semester course that will cover areas of skills and management practice needed to raise and handle livestock. Careers, selection, physiology, anatomy, nutrition and health practices are a few of the areas to be covered. Lecture, one hour per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

AGR 111. Corn and Soybean Production

This course will encompass the area of chemical and biological weed and insect control, crop breeding, during and storage of corn and soybeans, other good management practices where needed on three crops. Simulated field experiments will be conducted and discussed to demonstrate some of the principles taught in the classroom.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: V

AGR 120. Introduction to Agriculture Business

A course designed to acquaint the student with the agricultural business structure, types of jobs available, and the knowledge and skills needed in the various agricultural occupations. Lecture, three hours a week, and field trips.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

AGR 121. Feeds and Feeding

A course offering designed to show the composition of feeds and animal products. Also the course content will contain information about how animals utilize their food to meet the demands of production and maintenance. Lecture, one hour per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

AGR 122. Soils

This course will involve a study of the physical properties of soils, relationship between soils and common crop nutrients, soil sampling and fertilizer recommendations.

PREREQUISITE: None.
CREDIT: 1.5 semester hours.
OFFERED: V

AGR 123. Agriculture Production Techniques

This course is designed to meet the needs of the Agriculture Community for specialized educational experiences. Each class will be individualized to a particular set of needs and a credit value assigned for each section offered. Typical examples include uses of herbicides and insecticides, machine operation techniques, farm problems, and proper land usage. This course may be repeated for a maximum of six semester hours.

PREREQUISITE: None.
CREDIT: Variable, ½ to 3 semester hours.
OFFERED: V

AGR 127. Introduction to Animal Evaluation

This course will provide the student with basic animal evaluation experience and knowledge. Live animal workouts designed to study basic production goals in purebred and commercial animals will be studied. In addition, specific descriptive terminology will be stressed in conjunction with organization and compilation of oral reason presentations. Lecture, one hour per week; lab, four hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

AGR 201. Introductory Soil Science

This course will cover such areas as soil formation, color, structure, texture, classes and types. The classes will also include the use of fertilizers and the interpretation of soil tests. Laboratory experiments will be provided to enhance the work with soils and to provide the student with ample opportunities to do class and individual experiments, and to ask questions. Lecture, two hours per week; seminar, one hour per week; lab two hours per week.

PREREQUISITE: Course in Chemistry.
CREDIT: Four semester hours.
OFFERED: F

AGR 220. Crop Production

The course will encompass the area of chemical and biological weed control, crop breeding, drying and storage of crops, seed certification and other good management practices where needed on major crops. Simulated field experiments will be conducted to demonstrate some of the principles taught in the classroom. Lecture, two hours per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

AGR 221. Farm Management Problems

This course will acquaint the student with the problems of managing an operating farming business including enterprise selection, microcomputer applications, acquiring the farming unit, leasing arrangements, resource allocations, labor management, decision making processes, farm records and income taxes, capital investments, and soil conservation practices. Lecture, three hours a week.

PREREQUISITE: Basic Economics Course.
CREDIT: Three semester hours.
OFFERED: F

AGR 222. Agriculture Chemicals

This course includes a comprehensive study of common farm practices used in the chemical control of crop and livestock pests. Subjects include understanding pesticides, rates and application, growth regulators, insects, fertilizers, and pesticide laws and regulations. Lecture, one hour per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: CHM 121 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

AGR 223. Agricultural Sales

This course will consist of lecture-lab sessions dealing with aspects of agricultural sales. The ability to satisfy the customer's needs will be used as the basis for study. This offering will cover such areas as: determining customer needs, analyzing the product, resolving objections, and closing the sale. Emphasis will be placed on student participation in the classroom and the laboratory.

PREREQUISITE: None
CREDIT: Two semester hours
OFFERED: F

AGR 224. Internship

This is an on the job learning situation in which the student, the employer, and the supervising instructor keep in close contact to help the student implement learning technical information. This course joins together the technical information taught in the classroom and laboratory with the in-field experiences. A 1/2 semester hour seminar will meet concurrently with each internship period.

PREREQUISITE: Second year standing in Agribusiness or Agri-mechanics, completion of AGR 225 for Agribusiness students only, or consent of instructor.
CREDIT: Four and one-half semester hours. Can be repeated once.
OFFERED: F, SP, SU

AGR 225. Agriculture Internship Seminar

This course is designed to prepare the student for enrollment in Agriculture Internship, AGR 224. Instruction on obtaining and holding a job will be provided. Also, the student will become familiar with the forms, objectives, and requirements involved with participating in the agriculture internship program.

PREREQUISITE: Enrolled in an Agribusiness program.
CREDIT: One semester hour.
OFFERED: SP

AGR 226. Agriculture Marketing and Finance

An analysis of agricultural markets and the market place. Finance includes a study of financial management techniques, the uses of credit, and the sources of credit.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

AGR 227. Livestock Selection

This course will be advanced in the degree of livestock evaluation and intensity of oral reason presentation. Emphasis will be given to differentiation of breed type between breeds within each species, targeted production use within the livestock industry, and precise professional oral reason delivery. Lecture one hour per week, lab four hours per week.

PREREQUISITE: Sophomore standing or instructor's consent.
CREDIT: Three semester hours.
OFFERED: F

AGRIMECHANICS/DIESEL POWER

AGM 120. Basic Engines

This course provides a working knowledge in the repair, preventative maintenance, and adjustment of single and multi-cylinder engines. It will also cover principles of operation, related engine systems, and examination and measurement of engine components. Lecture, two hours per week; lab, four hours per week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

AGM 121. Hydraulics

This course will provide the student with a basic working knowledge of modern hydraulic systems. Emphasis will be on system components function, physical construction, and operation. Preventive maintenance and trouble shooting of systems will be stressed. Lecture, two hours per week, lab, four hours per week.

PREREQUISITE: None
CREDIT: Four semester hours
OFFERED: F

AGM 125. Transmissions and Final Drives

This course provides the theory and basic skills for the disassembly, inspection, repair, reassembly, adjustment, and maintenance of transmissions and final drives for agricultural equipment. Course will also include clutch and brake theory, servicing and adjustments. Lectures, one and one-half hours per week; lab, three hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

AGM 126. Air Conditioning

This course will provide the student with an understanding of the fundamentals of air conditioning systems used in agricultural equipment. Development of skills necessary to service and perform preventative maintenance on air conditioning systems will be emphasized. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

AGM 127. Electrical Systems

This course will provide the student with the basic understanding and the principles of electricity. Correlation of these principles with electrical systems and circuits found in agricultural equipment will be studied. Emphasis will be placed on repair, service, and preventative maintenance of the component parts of an electrical system. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP

AGM 129. Diesel Technology

This course provides the student with both theory and practical study of various diesel fuel systems found in agricultural equipment. This course will deal specifically with nozzle removal, testing, disassembly, repair, and reassembly. Emphasis will be on total system preventative maintenance.

PREREQUISITE: AGM 220, AGM 228 and AGM 229.
CREDIT: Four semester hours.
OFFERED: SP

AGM 223. Equipment, Parts, and Sales Management

This course will deal specifically with the business practices associated with the service shop, parts department, and sales department. Areas of study will include shop labor costs, time sheets, warranty forms, and shop tickets. Parts department will include parts pricing, storage, merchandising, and inventory controls. Sales department will include product knowledge, selling new and used equipment, and sales forms.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F

AGM 224. Cummins and Detroit Diesel Injection Systems

This course provides the student with an understanding and basic skills necessary for servicing Cummins/Detroit injection pumps. Diagnosis and correction of pump malfunction will be emphasized. Lecture, one hour per week, lab, two hours per week.

PREREQUISITE: AGM 129 or Division approval.
CREDIT: Two semester hours.
OFFERED: F

AGM 225. Set Up and Delivery of Agri-Machines

This course will provide the student with instruction for set-up, predelivery, and delivery service of tillage, planting, and harvesting machines with emphasis on field adjustments and preventive maintenance. Lecture, one hour a week; lab, four hours a week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

AGM 226. V.E. Bosch Injection Systems

This course provides the student with an understanding and basic skills for servicing V.E. Distributor Pumps. Diagnosis and correction pump malfunctions will be emphasized. No hours of lecture, lab, two hours per week.

PREREQUISITE: AGM 129 or Division approval.
CREDIT: One semester hour.
OFFERED: F

AGM 227. Electrical Systems Analysis and Repair

This is an advanced course dealing with electrical systems analysis and repair. The development of skills necessary for operation of testing equipment on electrical systems and electrical component reconditioning will be emphasized. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: AGM 127.
CREDIT: Two semester hours.
OFFERED: F

AGM 228. C.A.V. and Roosa Master Diesel Injection Systems

This course provides the student with an understanding and basic skills necessary for servicing Roosa-Master and CAV injection pumps. Diagnosis and correction of pump malfunction will be emphasized. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: AGM 129 or Divisional approval.
CREDIT: Two semester hours.
OFFERED: F

AGM 229. Robert and American Bosch Diesel Injection Systems

This course provides the student with an understanding and basic skills for servicing American Bosch and Robert Bosch injection pumps. Diagnosis and correction of pump malfunction will be emphasized. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: AGM 129 or Divisional approval.
CREDIT: Two semester hours.
OFFERED: SP

ALLIED HEALTH

A-H 120. Introduction to Health Science

This is an introductory study of health concepts basic to health occupations or for anyone interested in health. Theories of health-illness continuum are examined and compared. Methods to achieve and maintain a maximum health status are discussed stressing nutrition.

Stress factors and coping methods which are related to common health problems are discussed including common pathogenic organisms. Modern methods of prevention and treatment are explored in relation to specific health problems.

PREREQUISITE: High school or college basic biology.
CREDIT: Three semester hours.
OFFERED: F, SP

A-H 122. Human Growth and Development for Health Workers

A study of human growth and developmental process as it relates to the mental, physical, and social characteristics through the life span. Health promotion and maintenance measures for each stage are introduced.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

A-H 124. Basic Nursing Concepts and Skills.

This course is designed to enable an individual to perform those services commonly performed by the Health Care Assistant. Health Care Assistant functions and techniques useful in carrying them out are presented. Emphasis is placed on procedure performance and on the basic understanding and application of concepts and principles which apply. Lecture, three hours per week; lab, two hours per week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: V

A-H 125. Supervised Practice

Through supervised practice an opportunity is provided for developing proficiency and confidence in the utilization of knowledge and skills previously acquired. This practice will provide clinical experience in the hospital and the nursing home for students enrolled in the Nursing Assistant Program. Three hours lab per week.

PREREQUISITE: Concurrent enrollment or previous successful completion of the Nurse Assistant Program or consent of the instructor.
CREDIT: One semester hour.
OFFERED: V

A-H 126. Cardio-Pulmonary Resuscitation

A course designed to teach the principles and techniques of administering cardio-pulmonary resuscitation. Students will be prepared to meet the needs of most situations in which emergency first aid care for CRR is needed and medical assistance is not excessively delayed. Upon satisfactory completion of the course, students will receive certification from the American Red Cross.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: V

A-H 127. Drugs in Nursing Practice

This course is designed to provide the registered nurse, licensed practical nurse, or student nurse with extended theoretical knowledge and nursing implications of pharmacotherapeutics. Application of the nursing process and professional responsibilities in patient care are emphasized.

PREREQUISITE: Graduate of a nursing program or presently enrolled student nurse who has successfully completed one semester of nursing courses.
CREDIT: Two semester hours.
OFFERED: F, SP

A-H 128. Cardio-Pulmonary Resuscitation Review

A course designed to review and update the principles and techniques of administering cardio-pulmonary resuscitation. Upon satisfactory completion of the course, students will receive certification from the American Red Cross. Can be repeated four times.

Prerequisite: Students must show evidence of prior CPR certification.
Credit: One-half semester hours.
Offered: F, SP

A-H 220. Emergency Medical Procedures

The course is a study of emergency measures and skills used to save life and prevent further injury. It is designed for police, firemen, ambulance personnel, such as drivers, and others who may be called for emergency rescue of accident victims.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

A-H 221. Emergency Medical Technician-Ambulance

This course is designed to prepare ambulance personnel for the overall roles and responsibilities of the Emergency Medical Technician in performing both emergency care and operational aspects of his job by developing skill in short of those rendered by physicians, or by paramedical personnel under the direct supervision of a physician, and skill in the use of care for all equipment required to accomplish his job. Enrollment priority given to people working for an ambulance service or those who will work for an ambulance service upon course completion. A final grade of "C" or above must be attained before the student will be permitted to take the EMT certification exam.

PREREQUISITE: None
CREDIT: Five semester hours.
OFFERED: V

A-H 222. Emergency Medical Technician-Refresher

This course is designed to provide the Emergency Medical Technician with a review of material and techniques used in rendering emergency care to the sick and injured. The course also teaches the EMT personnel new methods and procedures in providing emergency medical care. Completion of this course will fulfill one requirement toward EMT re-certification. This course can be repeated four times for credit.

PREREQUISITE: None
CREDIT: One and one-half semester hours.
OFFERED: V

A-H 223. Emergency Medical Technician Refresher-Update I

This course is designed to provide in-service training to practicing Emergency Medical Technicians. The course will be organized to cover the material and techniques used by EMT personnel in the treatment of emergency conditions. The people taking this course will be able to obtain points to help in the retention of their EMT Certification.

PREREQUISITE: A-H 222.
CREDIT: 1.5 semester hours.
OFFERED: V

ANTHROPOLOGY

ANT 100. Introduction to Anthropology

This course is designed as a general anthropology course. The intent is to provide the student with a systematic and comprehensive coverage of basic concepts, principles, and terminology; in both physical and cultural anthropology.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

ART

ART 100. Art Survey

The study of paintings, sculpture, architecture and minor arts as they developed from prehistoric times to the Renaissance period, including early art of Africa and Americas. Lecture, three hours per week.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP, SU

ART 101. Art Survey II 1400-1800

Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the 18th century.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: SP, SU

ART 103. Design I

A basic studio course for those interested in fine arts, commercial art or art education. The student carries out a series of problems relating to the elements and principles of design. The course develops the student's organizational abilities and technical skill. .Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

ART 104. Design II

A studio course; continuation of ART 103 using a variety of media. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: ART 103 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

ART 105. Drawing I

Basic studio course for those interested in fine arts, commercial art, or art education. Using a variety of media and approaches, student develops ability in descriptive and interpretive drawing, including perspective and outdoor sketching. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP, SU

ART 106. Drawing II

Charcoal, pencil, and ink are basic materials. Exploring mixed media and ink wash on different papers. Emphasis on expressive interpretation. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: ART 105 or equivalent.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 107. Painting I

Oil (or acrylic) painting is explored through instruction in materials and techniques, composition and color and the development of individual expression. A series of original paintings are executed by each student. An examination of important trends in painting.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 108. Introduction to Watercolor Painting

Introductory watercolor deals with pigments, equipment, materials, color theory and practice, and watercolor methods. The study of transparent watercolor techniques includes wash, dry brush and wet-in-wet.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP, SU

ART 109. Pottery I

Introduction to the terminology and technical aspects of ceramics. Basic techniques for clay preparation, hand forming, wheel throwing, and the operation of the kiln kick wheels and power operated potter's wheels. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 200. Sculpture I

A study of several media and techniques involving clay modeling, casting, carving and direct plaster. Construction of armature and use of the basic tools of the sculpture. Modeling from life is a part of this course. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 201. Weaving I

Introductory course in the fundamentals and techniques of weaving. Included will be yarn calculations, pattern reading, design experimentation, and simple spinning. A variety of looms, simple to complex, will be used. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: F

ART 202. Weaving II

This course is designed to be a continuation of Weaving I, involving a further exploration of fiber techniques. Greater emphasis will be placed on design, understanding pattern drafting, spinning on a spinning wheel and natural dyes. A variety of looms, simple to complex, will be used. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP

ART 203. Three Dimensional Design

Study of three-dimensional design in a variety of media such as paper, clay, plaster, wood, metal and plastics. The elements of design as related to creative expression and specific materials in 3-D design. Lecture, one hour per week; studio, four hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

ART 204. Art Fundamentals

Theory and practice of the creative processes in the visual arts. Students will gain an appreciation of the various art forms and will have live studio work in drawing and design, painting, printmaking, pottery and sculpture. Lecture, one hour a week; laboratory, two hours a week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 205. Life Drawing

The study of the structure, anatomy, and expressive design of human form; drawing from the model, using a variety of drawing media. Lecture, one hour per week; studio, four hours per week.

PREREQUISITE: ART 106.
CREDIT: Three semester hours.
OFFERED: SP

ART 206. Visual Communications I

An introduction to design in advertising. A studio course in layout, lettering, mechanical skills, and studio preparation for graphic production, as well as a survey of reproduction processes.

PREREQUISITE: ART 104, ART 106.
CREDIT: Three semester hours.
OFFERED: F, SP

ART 207. Painting II

Continuation of Painting I with greater emphasis on technical improvement and pictorial expression.

PREREQUISITE: ART 107.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 208. Introduction to Photography

An introduction to the principles and practices of black and white photography, this course teaches students the use of still cameras, film, composition techniques, developing skills, and printing methods. Students will supply their own cameras (35 mm or 2¼ x 2¼ or comparable formats). Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ART 209. Pottery II

Continued application of first semester procedures of Pottery I, with emphasis on the control of design in form and techniques, including methods of glaze application and decorative techniques. Practice in the operation of clay equipment, stacking and firing kilns. Experimentation in the possibilities and limitations of the medium.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

AUTOMOTIVE MECHANICS

ATO 120. Introduction to Automotive Mechanics

This is an introductory level course designed to familiarize students with safety, service manuals, precision measuring devices, hand tools, automotive fasteners and the oxyacetylene welder. Lecture one hour per week.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F

ATO 121. Basic Gas Engines

This is an introductory course designed to give the students a background in the theory, construction, design, operation, and service of gasoline piston engines. Laboratory work will consist of the following requirements on a given engine; (1) disassembling, cleaning, inspecting, measuring, recording, machining, and reassembling. Students are encouraged to supply their own engine for this course. Lecture two hours a week; laboratory, six hours a week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

ATO 122. Basic Automotive Electricity

Basic automotive electricity is a course dealing with the theory, construction, operation and servicing of batteries, cranking systems, charging systems and ignition systems of all makes of American automobiles. Students will perform on and off the car tests, disassemble, repair and assemble components of both conventional and transistorized electrical systems using appropriate manuals, test equipment and safety practices. Lecture, two hours a week; laboratory, two hours a week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

ATO 123. Bench Work Operations

Bench work operations is a course designed to prepare the student for engine overhaul and typical job procedures encountered when repairing vehicles.

Included in the content are basic machining operations such as grinding valves and seats, cutting brake drums, drilling and tapping holes, sharpening drill bits and more. Also included will be forming of flares on tubing, soldering electrical connections and using precision measuring instruments.

All bench work operations will be done utilizing the appropriate manuals, specifications, equipment, and safety practices. Lecture, one hour per week; laboratory,. three hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F

ATO 124. Power Trains and Manual Transmissions

This course includes the information relative to clutches, transmissions front wheel drive, overdrive, and differentials on the modern day motor vehicle. A study of the operation of the constant mesh and sliding gear transmission and servicing of these systems is covered. Lecture, two hours a week; laboratory, three hours a week.

PREREQUISITE: ATO 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

ATO 125. Basic Tune-Up

This course involves the practical application of theory that is covered in Internal Combustion Engine and Basic Automotive Electricity. Included are the starting, charging, compression, fuel, and ignition systems. Laboratory experience will include operations with actual motor vehicles and modern tune-up equipment. Lecture, two hours a week; laboratory, three hours a week.

PREREQUISITE: ATO 122, or equivalent or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

ATO 126. Steering and Suspension Systems

To familiarize the student with the fundamentals of automotive steering, geometry, front and rear alignment, and suspension systems. Diagnostic procedures, component servicing, and maintenance are emphasized in the classroom and live lab. Some of the equipment used in lab are the Bear TAC 4 computer alignment machine, the Hunter Lite-A-Line alignment machine, Bear computer wheel balancer, Mac Pherson strut tool, and other items. The main emphasis will be on properly aligning a car and getting acquainted with the four wheel alignment machine. Lecture, two hours a week; laboratory, six hours a week.

PREREQUISITE: ATO 120 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SP

ATO 220. Brake Systems

Provides instruction on automotive passenger car drum/disc brakes, power assist units, and anti-skid brake systems. Practical service operations such as brake machining and rebuilding wheel cylinders, calipers, master cylinders, and power assist units are examples of activities that will be performed. Lecture, two hours a week; laboratory, six hours a week.

PREREQUISITE: ATO 120, or consent of instructor.
CREDIT: Four semester hours.
OFFERED: F

ATO 221. Advanced Tune-Up

Covers theory of various engine systems such as mechanical, fuel, charging, timing, electronic ignition, and some computer controlled functions related to the engine. Lab provides the student an opportunity to obtain practical experience in diagnostic procedures by using testers such as a VAT-40, hand-held digital electrical meter, oscilloscope, 4-gas analyzer, and computerized engine analyzer to service today's complicated engine.
Lecture, two hours a week, laboratory, six hours a week.

PREREQUISITE: ATO 121, 122, 125 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: F

ATO 222. Fuel Systems and Emission Controls

The theory, service, diagnosis and overhaul of carburetors will be the main emphasis of this course. Other areas studied will be electronic fuel injection, feedback carburetors, turbo-chargers, intake and exhaust systems, and emission control devices including their application and service. Lecture, two hours a week, laboratory, six hours a week.

PREREQUISITE: ATO 122, 125.
CREDIT: Four semester hours.
OFFERED: F

ATO 223. Automatic Transmissions

This course includes the information relative to auto transmissions on the modern day motor vehicle. A study of the operation of the hydraulic planetary transmission and services of these systems are covered. Lecture, two hours per week; laboratory, six hours per week.

PREREQUISITE: ATO 120, 124 or consent of the instructor.
CREDIT: Four semester hours.
OFFERED: SP

ATO 224. Automotive Accessories

Provides a comprehensive understanding of power operated accessories such as power seats, windows, door locks, antennas, automatic light controls, speed controls, windshield wipers, and electronic instrumentation. Reading wiring diagrams and becoming a good electrical troubleshooter are two main goals for this class. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: ATO 120, 122 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

ATO 225. Heating and Air Conditioning

This course covers the theory, construction, operation, and servicing of the air conditioning and heating systems found on the automobile. Emphasis will be placed on testing, troubleshooting, and servicing of the air conditioning system using the appropriate manuals, tools, equipment, and safety practices. Installation of A.C. aftermarket units may also be done.

Lecture, two hours a week; laboratory, two hours a week.

PREREQUISITE: ATO 122
CREDIT: Three semester hours.
OFFERED: SP

ATO 227. Automotive Diesel Systems

The purpose of this course is to provide the student with the basic skills to do repair and diagnose diesel fuel systems and their related problems. Basic theory and operation will be stressed for the understanding of fuel systems and the problems they cause. Lecture two hours a week, laboratory, two hours a week.

PREREQUISITE: ATO 121.
CREDIT: Three semester hours.
OFFERED: F

ATO 228. Computerized Engine Controls

This course is designed to teach how computers aid in controlling fuel systems, electronic ignition, spark advance management and emission control devices. Computer functions, on-board diagnostics, circuit testing, feedback carburetion, and electronic fuel injection will also be discussed. Lecture, two hours a week; laboratory, two hours a week.

PREREQUISITE: ATO 122, 125, 221, & 222 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

BANK FINANCE

BFC 120. Principles of Bank Operations

This course presents a broad overview of banking functions and operational procedure. Emphasis is on banking policy and practice. Topics covered include banks and the monetary system, negotiable instruments, the relationship of commercial banks to depositors, types of bank accounts, the deposit function, the payments function, and bank loans. Also reviewed will be bank investments, bank marketing and accounting, public service obligation of banks, and government regulation of banks.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

BFC 121. Installment Credit

This course is designed to familiarize students with commercial bank installment lending policies and procedures. Emphasis is placed on establishing the credit, on obtaining and checking information, on servicing the loan, and on collecting the amounts due. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.

PREREQUISITE: BFC 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

BFC 122. Introduction to Commercial Lending

Course provides an introductory overview of the commercial lending function. Introduces students to the field of commercial banking. Deals with the lending process, portfolio management, and regulation.

PREREQUISITE: BFC 120.
CREDIT: Two semester hours.
OFFERED: On Demand

BFC 123. Bank Investments

This course presents the factors that affect investment strategies and decisions, grounded in a framework of fundamental investment concepts such as risk, liquidity, and yield. The basic characteristics of the major types of bank investments are studied.

PREREQUISITE: BFC 120.
CREDIT: Two semester hours.
OFFERED: On Demand

BFC 124. Analyzing Financial Statements

Designed for the student who already has an understanding of accounting and wants to know how to apply that knowledge to the interpretation and evaluation of financial reports. The course focuses on the ways in which financial statement analysis is used in bank credit decisions.

PREREQUISITE: ACT 101 or 121
CREDIT: Two semester hours.
OFFERED: On Demand

BFC 125. Bank Accounting

Course stresses bank accounting principles and applies them to typical bank financial statements. Accounting procedures unique to bank accounting including various statement categories, chart of accounts, and financial ratio calculations are covered.

PREREQUISITE: ACT 121 and BFC 120
CREDIT: Two semester hours
OFFERED: On demand

BFC 126. Law and Banking Principles

The course introduces the student to the legal and regulatory environment in which banking operates. After discussing the sources of laws affecting banks, specific topics covered include legal entities, contracts, real and personal property, bankruptcy, and consumer lending.

PREREQUISITE: BFC 120
CREDIT: Two semester hours
OFFERED: On demand

BFC 127. Law and Banking Applications

The course familiarizes the student with the laws of negotiable instruments, letters of credit and secured transactions. Specific topics include: commercial paper, holders in due course, liability, bank collections, check losses and frauds, letters of credit, and secured transactions.

PREREQUISITE: BFC 126
CREDIT: Two semester hours
OFFERED: On demand

BFC 128. Marketing for Bankers

Course describes how marketing is applied to the business of banking. Special topics include the marketing organization, planning, strategy, pricing, promotion, wholesale banking, and public relations.

PREREQUISITE: BFC 120
CREDIT: Three semester hours
OFFERED: On demand

BIOLOGY

BIO 101. General Biology I

An intergrated course covering the fundamentals of the plant and animal world. Special attention is given to the structure and function of cells, the genetic continuity of life, and evolution. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F, SP, SU

BIO 102. General Biology II

A continuation of the concepts introduced in Biology 101, with emphasis on human biology, ecology, and the diversity of life. The fetal pig is given special attention in the laboratory along with exercises dealing with human biology and other selected organisms. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: BIO 101.
CREDIT: Four semester hours
OFFERED: F SP

BIO 103. Principles of Biology

The study of life processes common to plants and animals. The topics include metabolism, cellular organization, reproduction, heredity, and evolution. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week. Suggested for majors or minors.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

BIO 104. Man and His Environment

A study of the human relationships with, and responsibility for, the health and well-being of our earth. Ecology, the branch of science investigating the relationships of an organism (man) with its environment (earth) is the emphasis of this course. Major considerations are given to the use and misuse of the earth's energy and material resources, the consequences of and alternatives to human actions and the individual physical costs plus collective social costs.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

BOTANY

BOT 105. General Botany

Botany, the study of plants, includes a phylogenetic survey of the plant kingdom from bacteria and viruses to flowering plants with special emphasis placed upon the local flora. Vascular plants are considered in detail of their morphology, physiology, ecology, genetics, evolution, and taxonomy. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: BIO 101 or BIO 103 or
BOT 109 or ZOO 107.
CREDIT: Four semester hours.
OFFERED: F

BOT 109. Microbiology

An introductory study of the nature and activities of micro-organisms and their effect on human affairs. Emphasis is on the fundamental principles and their applications. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: BIO 101 or BIO 103 or
ZOO 107.
CREDIT: Four semester hours
OFFERED: F, SU

BUSINESS EDUCATION

BUE 101. Introduction to Business

An introductory survey course covering such topics as management, marketing, finance, labor relations, and business government relations. The course is designed to provide students an opportunity to learn business terminology and to understand the interrelatedness of the various business functions.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

BUE 103. Business Mathematics

A review of the fundamental mathematical processes, fractions, and percentage. A study of discounts, commissions, depreciation, overhead, interest, bank discount, Federal income tax, amortized mortgage loans, balance sheet ratios, statistical measures; financial statements, graphs, stocks, and bonds.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

BUE 107. Typing I

Emphasis is placed upon production typewriting. Practice in typing business letters, forms, tabulated material and manuscripts is provided with skill building in speed and accuracy. One lecture and two hours of laboratory per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: F, SP, SU

BUE 115. Brush-Up Shorthand

A review of Gregg shorthand theory with emphasis upon dictation and transcription skills.

PREREQUISITE: One or more semesters
of shorthand.
CREDIT: One and a half semester
hours.
OFFERED: On Demand.

BUE 117. Brush-Up Typing

This course is designed to review and improve current typing skills and procedures.

PREREQUISITE: At least one semester
of typing.
CREDIT: One and a half semester
hours.
OFFERED: On demand.

BUE 120. Stocks and Bonds

A study of stock and bond markets; fundamental principles of financial investments; determination of investment procedures, management of investment funds; a look at the commodity market; an understanding of the options market.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

BUE 123. Basic Keyboarding

Emphasis is placed on learning the touch operation of the alphabetic and numeric keyboards found on computer terminals, information processors, and other keyboards. There will be a sequence of learning materials and activities used in order to reach operational skill on these keyboards in a limited amount of time. Lecture, one-half hour per week; lab, one hour per week.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

BUE 125. Shorthand I

Principles of beginning Gregg shorthand, including a thorough study of brief forms, phrasing, vocabulary building, and dictation. Pretranscription training involves punctuation, grammar and spelling review. Three lecture and two lab hours per week.

PREREQUISITE: At least one semester
of typewriting or concurrent
enrollment.
CREDIT: Four semester hours.
OFFERED: F

BUE 126. Shorthand II

A continuation of Business Education 125. A review of Gregg shorthand theory through emphasis upon dictation and transcription procedures. Three lectures and two lab hours per week.

PREREQUISITE: BUE 125 or its
equivalent; BUE 107 or its
equivalent.
CREDIT: Four semester hours.
OFFERED: SP

BUE 128. Typing II

Emphasis is placed upon production typewriting. Ability to produce work acceptable to business as well as the development of related learnings and decision making form an integral part of the course. On lecture and two hours of lab per week.

PREREQUISITE: BUE 107 or its
equivalent.
CREDIT: Two semester hours.
OFFERED: F, SP

BUE 220. Advanced Typing

Continuation of development of speed and accuracy in typing more complex business letters, forms, and manuscripts. One lecture and two hours of laboratory per week.

PREREQUISITE: BUE 128.
CREDIT: Two semester hours.
OFFERED: F

BUE 222. Business Communications

A study of types of letters used in business. It presents an understanding of the service of written communications in business, including letters, reports, and interoffice communication. The fundamentals of good letter writing are stressed and applied to typical business situations. Practical experience is given in writing letters. This course will also include a review of basic grammar and punctuation.

PREREQUISITE: Eng 101 or 124.
CREDIT: Three semester hours.
OFFERED: F, SP

BUE 224. Office Procedures and Administration

A study of the duties and responsibilities of the secretary and office manager in business and professional offices and qualities requisite for success. A management concept is developed through knowledge and techniques involved in alphabetic, geographic, numeric, and subject filing as they relate to efficient control and management of business records as well as an overview of data processing and its applications as developed through selected projects.

PREREQUISITE: BUE 128 or concurrent enrollment.
CREDIT: Three semester hours.
OFFERED: F, SP

BUE 227. Secretarial Internship

The student intern will be employed in a secretarial related position in a private industry under the supervision of a coordinator and/or employer.

PREREQUISITE: Second year standing and BUE 126 and BUE 128.
CREDIT: Three semester hours.
OFFERED: F

BUE 228. Professional Typing

Refinement of typing skills with major emphasis on advanced executive, legal, and medical typewriting and procedures. Students may elect to concentrate on one major area or a combination of two from the executive, legal or medical areas. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: BUE 220.
CREDIT: Two semester hours.
OFFERED: SP

BUE 229. Secretarial Internship

This is a continuation of Business Education 227, Secretarial Internship.

PREREQUISITE: Completion of BUE 227 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

BUSINESS LAW

BUL 200. The Legal Environment of Business

Course deals with the legal environment in which business operates. The general areas of study are: the legal framework of business, antitrust law, consumer law, securities law, labor law, and the social environment of business. Specific topics include: the judicial system, the Clayton Act, Sherman Act, FTC, product liability, truth in lending, S.E.C., labor law, and environmental law.

PREREQUISITE: Second year standing.
CREDIT: Three credit hours.
OFFERED: F, SP, SU

BUL 201. Business Law I

A brief survey of the basic principles of law that govern the relations of people both individually and collectively. A consideration of courts and court procedure, the law of contracts, personal property and bailments, and sales contracts.

PREREQUISITE: Second year standing or consent of Division Chairperson.
CREDIT: Three semester hours.
OFFERED: F, SP

BUL 202. Business Law II

This course is a study of legal principles as they relate to people both individually and collectively and to business operations. Topics to be included are partnerships, corporations, real property, estates, government regulations, labor law, and other related topics.

PREREQUISITE: BUL 201.
CREDIT: Three semester hours.
OFFERED: SP

CARPENTRY APPRENTICESHIP

CAP 120. Introduction to Apprenticeship

An introduction to the carpenter's trade including the local apprenticeship program and the responsibilities of an apprentice. The course also includes the labor-management relation, safety, first aid, hand tools, power tools, lumber, scaffolding, rigging, and hand signaling. Lecture, 1.5 hours per week; laboratory, 1.5 hours per week.

PREREQUISITE: None.
CREDIT: 2.5 semester hours.
OFFERED: F

CAP 121. Layout for Carpenters

A course designed to give the student the basic skills of architectural sketching, using the carpenters framing square (R100), and its use in stair layout and framing. Also included is a study of the builders level-transit to be used in site layout, the construction laser, and fasteners. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: CAP 120.
CREDIT: Four semester hours.
OFFERED: SP

CAP 122. Framing I

This course is designed to introduce the student to floor and sill framing, and also including concepts in math for carpenters and blueprint reading for carpenters, wall and partition framing. Lecture, 1.5 hours per week; laboratory, 1.5 hours per week.

PREREQUISITE: CAP 121.
CREDIT: 2.5 semester hours.
OFFERED: F

CAP 123. Concrete Forms

A course designed to provide instruction on various methods of concrete form construction, such as: footing forms, wall forms, edge forms on grade, curb forms, stair forms, deck forms, and beam forms. Also included are concepts in math for carpenters as well as blueprint reading for the carpenter. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: CAP 122.
CREDIT: Four semester hours.
OFFERED: SP

CAP 220. Framing II

This course is designed to introduce the student to roof framing including trusses. Other topics included are various structural timber construction systems, fireproof masonry, and metal stud construction. Also included are concepts in math for carpenters and blueprint reading for carpenters. Lecture, 1.5 hours per week; laboratory, 1.5 hours per week.

PREREQUISITE: CAP 123.
CREDIT: 2.5 semester hours.
OFFERED: F

CAP 221. Interior Systems

This course includes interior wall coverings, interior doors and jambs, ceiling systems, and floor coverings. Math for carpenters and blueprint reading for carpenters are also included. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: CAP 220.
CREDIT: Four semester hours.
OFFERED: SP

CAP 222. Exterior Systems

This course includes the materials and their installation commonly associated with the exterior of a building such as: flashing, trim siding, exterior jambs, and windows. Lecture, 1.5 hours per week; laboratory, 1.5 hours per week.

PREREQUISITE: CAP 221.
CREDIT: 2.5 semester hours.
OFFERED: F

CAP 223. Millwork

This course includes a study of plastic laminates and cabinet making and installation as well as millwork and interior finish. Blueprint reading for carpenters is also included. Lecture, three hours per week; laboratory, two hours a week.

PREREQUISITE: CAP 222.
CREDIT: Four semester hours.
OFFERED: SP

CHEMISTRY

The course descriptions in chemistry include guidelines for the student as to the laboratory time required. The laboratory is an open lab (unscheduled) and is available to the students with an instructor present as posted. The students are expected to plan for time in the laboratory so that the necessary experimental work can be completed.

CHM 100. Introduction to Chemistry

This course surveys the fundamental concepts of general chemistry and includes some organic and biochemistry. A non-mathematical approach is used where possible. The course is intended for non-science majors or as a background for science majors but does not serve as a prerequisite for any advanced chemistry course. Lecture, three hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

CHM 104. Chemistry

This is an introductory course in chemistry suitable as a general education laboratory science course or as a preparatory course for general chemistry. Basic ideas, terminology, and mathematical skills are emphasized. Concepts of energy, atomic structure and bonding, formulas, nomenclature, equations, stoichiometry, states of matter, solutions, and some organic chemistry are covered. Lecture, two hours per week; laboratory, three hours per week; seminar, one hour per week.

PREREQUISITE: Intermediate algebra
or concurrent enrollment.
CREDIT: Four semester hours.
OFFERED: F, SP, SU

CHM 106. General Chemistry I

This course covers the general principles of chemistry including atomic theory, bonding and molecular geometry, stoichiometry, the states of matter, thermodynamics, nuclear chemistry, and solutions. Laboratory emphasizes quantitative work. The course is recommended for students with a year of high school chemistry and at least one and one-half units of algebra and a satisfactory score on the chemistry placement examination. Lecture, three hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: CHM 104 or 1 year of
H.S. chemistry, 1 and 1/2 units
of H.S. algebra and a
satisfactory score on the
chemistry placement examination.
CREDIT: Five semester hours.
OFFERED: F, SP, SU

CHM 107. General Chemistry II

This course is a continuation of CHM 106. Topics include kinetics, equilibrium, acid-base theories, buffers, electrochemistry, coordination chemistry, and organic chemistry. Laboratory includes gravimetric, volumetric, electroanalytic, and spectrophotometic methods of analysis. Lecture, two hours per week; seminar, one hour per week; laboratory, six hours per week.

PREREQUISITE: CHM 106.
CREDIT: Five semester hours.
OFFERED: F, SP, SU

CHM 121. Agricultural Chemistry

This is a course designed to give the student a background of chemistry principles and applications of chemistry to the field of agriculture and is for students in the Agricultural Technology curriculum. Lecture, two hours per week; seminar, one hour per week; laboratory, two hours per week.

PREREQUISITE: Vocational
Agriculture Curriculum.
CREDIT: Four semester hours.
OFFERED: SP

CHM 201. Quantitative Analysis

This is a course designed to give the student the theoretical and practical knowledge of gravimetric, volumetric, and instrumental methods of quantitative chemical analysis. Lecture, two hours per week; seminar, one hour per week; laboratory, six hours per week.

PREREQUISITE: CHM 107 or equivalent.
CREDIT: Five semester hours.
OFFERED: Alternate SU

CHM 202. Organic Chemistry I

The course covers the fundamental principles of organic chemistry stressing the preparation, reactions, mechanisms, and structure of organic compounds. Laboratory includes basic techniques in compound purification, synthesis and identification. Hands-on application of infra-red spectroscopy and gas chromatography are utilized in qualitative and quantitative analysis of organic compounds. Lecture, two hours per week; seminar, one hour per week; laboratory, six hours per week.

PREREQUISITE: CHM 107 or the
equivalent or consent of
instructor.
CREDIT: Five semester hours.
OFFERED: F

CHM 203. Organic Chemistry II

This course is a continuation of Organic Chemistry I and including applications of mechanisms to synthetic reactions, the use of spectral data in the determination of structure and analysis, and natural products. Lecture, two hours per week; seminar, one hour per week; laboratory, six hours per week.

PREREQUISITE: CHM 202 or equivalent.
CREDIT: Five semester hours.
OFFERED: SP

CHILD CARE/PRESCHOOL EDUCATION

CC 120. Introduction to Child Care

This course is designed to give the student an overview of the field of child care. The course provides knowledge of the developmental characteristics, interests and abilities of the young child which lay the foundation for further study. The various programs for the young child will be examined. The duties and responsibilities of the child care worker will be explored. There will be a focus on the workers' attitudes and skill in working with the child as an individual and in a group setting.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

CC 121. Early Childhood Curriculum: Environment and Management

This course is designed to expose the student to a variety of indoor and outdoor play activities for fine and gross motor development for the young child in various early childhood educational environments. The student will also have the opportunity to learn about classroom management and the process of establishing an environment which encourages positive behavior and interaction.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

CC 123. Practicum I

This course is designed to provide the student with both theory and practice in modern child care centers. Students will engage in supervised participation in child care centers under the direction of a qualified teacher. Students plan and carry out art, music and other learning activities with the children. Individual conferences, written reports, outside reading and seminar sessions are also integral parts of this course. Students are expected to study the behavior of children individually, and in groups, in light of current knowledge in child development. Lecture, one hour per week; laboratory, ten hours per week.

PREREQUISITE: Completion of two semesters in program with a "C" grade average and approval of instructor.
CREDIT: Six semester hours.
OFFERED: F, SP

CC 125. Children's Health

This course provides basic information concerning the healthy physical and emotional development of the child. Included will be information on common childhood ailments and diseases, care for the exceptional child, good nutrition, good safety habits and a knowledge of agencies that contribute to the well-being of children.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

CC 126. Observation in Child Care Programs

The course is designed to help students become familiar with the duties and responsibilities of preschool teachers and aides. Students will observe and assist in a child care program for young children once a week. Students will develop observation techniques and skills, become aware of behavior of young children in group settings, and learn ways to provide an environment that meets the needs of children. Seminar, one hour per week; laboratory one hour per week.

PREREQUISITE: None.
CREDIT: One and one-half semester hours.
OFFERED: F

CC 220. Supervision and Administration of Child Care Programs

This course is designed to develop skills in administration and supervision for students who wish to work in early childhood education centers. Included will be topics such as program planning, selection and use of staff, the role of the administrator and supervisor, administrative tasks, in-service training for staff improvement, and community resources for supplementing the center's services. Planning of facilities, budgeting and purchasing of materials and equipment will also be covered. Students will study the use of microcomputers for the administration of child care programs. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: SP

CC 222. Early Childhood Curriculum: Materials Development and Implementation

The intent of this course is to acquaint the student with the basic curriculum areas in the early childhood center. The student will become actively involved in the creating of materials and activities for a pre-school environment. Students will have the opportunity to study the use of microcomputers and appropriate software in the preschool environment. Coordinating of a program, daily planning and scheduling will also be covered. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

CC 223. Practicum II

This course provides the student with an opportunity to participate as a student child care worker in a child care center, utilizing the skills and techniques and applying the theory previously learned. The student engages in every phase of the child care centers; work in an on-the-job experience under the direction of a qualified person. Individual conferences, reports and projects, supplementary reading and seminar sessions are also integral parts of this course. Lecture, one hour per week; laboratory, ten hours per week.

PREREQUISITE: CC 123.
CREDIT: Six semester hours.
OFFERED: F, SP

CC 224. Child Care Agencies/Laws and Licensing

This course informs the student concerning existing laws and licensing requirements for nursery schools, day care centers and other pre-school programs. The student becomes aware of the relationship between the pre-school teacher and community organizations.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

CC 225. Art in Early Childhood

This course is designed to give students an understanding of the creative potential of young children. The student will participate in activities using a variety of art media appropriate for use with pre-school children. The student will have the opportunity to learn how to establish a creative environment in the classroom. The student will also learn appropriate methods of presenting art activities to young children. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

CC 227. Teaching Music in Early Childhood

This course introduces the student to the various areas of music in the pre-school curriculum: singing, listening, use of instruments and creative movement. The student has the opportunity to learn methods of presentation of songs and musical activities. Students also participate in learning to sing children's songs and play the autoharp or omnichord. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

CC 228. Literature in Early Childhood

This course introduces the student to Children's Literature. The student has the opportunity to become familiar with criteria for selecting quality books and stories appropriate to pre-school children. The student will learn methods of incorporating literature into other areas of the pre-school curriculum. The student will also have the opportunity to develop skills in different methods of presentation including reading of stories, flannel board presentations, storytelling and puppets. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

COMPUTER NUMERICAL CONTROL

CNC 120. CNC Machine Operations I

The student will be able to operate CNC machines, including machinery centers, turning centers and drills. Lecture, one per week; laboratory, four hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Three semester hours.
OFFERED: F

CNC 122. Manual Programming

The student will be able to manually write programs for simple parts to blueprint specifications. Successful completion of this course will enable the student to be more knowledgeable of the following course (computer aided programming) during the next quarter. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Three semester hours.
OFFERED: F

CNC 124. CNC Machine Operations II

Instructions in this course will be a continuation of CNC I. The student will be taught to write operation sheets, align fixtures, and load workpieces. Proper loading of programs into the machine control, verifying accuracy and editing tapes will also be taught. The basis of feed and speed will be covered. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Three semester hours.
OFFERED: F

CNC 126. CNC Operations III

This course will stress the question of the common types of turning centers. Instruction in this course will be a continuation of CNC Operations II. The student will be taught to write operation sheets, align tool head and load work pieces. Proper loading of programs into the machine control, verifying accuracy and editing tapes will also be taught. The basis of feed and speeds will be covered. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Three semester hours.
OFFERED: F

CNC 220. CNC Machine Programming I

In this course, the student will learn to create programs for CNC milling and drilling operations. The student will be taught to develop a sequence of operations, understand work holding methods and speeds and feeds. Also covered will be point to point manual programming, computer-assisted programming, verification and tape editing, and safety. Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Four semester hours.
OFFERED: F

CNC 222. CNC Machine Programming II

In this course, the student will learn to create programs for CNC turning centers. The student will be taught to develop a sequence of operations, understand work holding methods and speeds and feeds. Also covered will be point to point manual programming, computer-assisted programming, verification and tape editing, and safety. Lecture, one per week; laboratory, six hours per week.

PREREQUISITE: Must in second year of CNC Operations Curriculum.
CREDIT: Four semester hours.
OFFERED: F

CNC 224. CNC Machine Programming III

In this course, the student will learn the basics of APT (Automatic Programmed Tools) programming or Compact II Programming. This will be done with the aid of interactive graphics and CNC parts programming system. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: Must be in second year of CNC Operations Curriculum.
CREDIT: Four semester hours.
OFFERED: F

COMPUTERS -
COMPUTER LITERACY

CL 101. Computer Literacy

This course follows the history of data processing systems, input-output media, and internal processing characteristics of computers. Word processing and CRT usage are discussed along with software applications. This course is intended to provide a short, non-technical overview of computers and computer usage.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F, SP

COMPUTERS -
COMPUTER SCIENCE

CSI 101. Computer Programming

A beginning course covering the solution of problems using a digital computer. Topics include computer architecture, problem definition, algorithm development, and both numeric and alphanumeric applications involving use of the FORTRAN programming language. Students will use the college computing facilities for writing programs relating to student's major field of interest.

PREREQUISITE: Math 101.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

CSI 102. Introduction to Business Computer Systems

A course for business majors planning to transfer to a four-year institution. Computer equipment, programming, and applications will be surveyed. Computer programs will be written and executed in a structured language. Students will be acquainted with the operation of various business software packages.

PREREQUISITE: MTH 101
CREDIT: Three semester hours
OFFERED: F, SP, SU

CSI 104. Assembler Language Programming

Man-machine communication, introductory basic assembly language, input-output, program debugging, housekeeping techniques, flowcharting, program documentation, loops, number systems, architecture, indexes, switches. Lecture, two hours per week; seminar, one hour per week; laboratory, four hours per week.

PREREQUISITE: None.
CREDIT: Five semester hours.
OFFERED: SP

CSI 105. Computers in Business

This course is designed to provide a basic understanding of computers and computer systems within the business organization as used in the decision making process. Specific information processing support tools covered will include: PERT, Linear Programming, Spread sheets, Data Base, Word Processing, Telecommunications, Simulation and Modeling, and Forecasting.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

CSI 201. Computer Programming COBOL

This course is designed to give the student a comprehensive knowledge of COBOL programming. The student will design, code, compile, and test programs to solve problems similar to those which exist in business.

PREREQUISITE: MTH 101.
CREDIT: Three semester hours.
OFFERED: SP

CSI 202. Programming Systems

Assemblers, compilers, pre-compilers, macro-generators, subroutines, high level languages, and console controls, FORTRAN and COBOL and PLI programming language concepts in a structured approach. Lecture, two hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: SP

CSI 203. Advanced Programming Systems

Introduction to direct access storage facility, multiprogramming, job stacking environment, teleprocessing on-line real time systems, SORT verb, subprograms and the report writer feature using COBOL in a structured approach. Lecture, two hours per week; seminar, one hour per week; laboratory, five hours per week.

PREREQUISITE: CSI 202.
CREDIT: Five semester hours.
OFFERED: F

CSI 204. PL/I Programming

This course is designed to give the student a comprehensive knowledge of PL/I programming. The student will design, code, compile, and test programs.

PREREQUISITE: Math 101.
CREDIT: Three semester hours.
OFFERED: SP

COMPUTERS - DATA PROCESSING

DP 120. Elementary Computer Concepts

This course is designed to help the layman understand the environment in which automated data equipment is used, exposing him to the associate terminology, processes, and effects. Primarily, this course presents an overview of data processing, possible applications, preparation of input and automated equipment and processes.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

DP 121. Data Processing Fundamentals

This course follows the history of data processing systems, input-output media, and internal processing characteristics of computers. Flowcharting and logic, and their relationship to computer programming instruction and development, word processing and CRT usage are discussed.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

DP 122. Computer Logic with BASIC

The course introduces the student to structured programming logic. Students will design program solutions and then translate the solution into a complete program using the BASIC language. Lecture three hours per week; lab two hours per week.

PREREQUISITE: None
CREDIT: Four semester hours
OFFERED: F

DP 123. Computer Operations I

First of a two course sequence designed to provide job entry knowledge for computer operations. Offline, perpherials, and CPU console operation will all be covered in detail. Related topics such as data controls, job control language, operating system fundamentals, and data processing organizations will also be included. Lecture, 2 hours per week, lab 4 hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

DP 124. Computer Operations II

Continuation of Computer Operations I (DP 123). Lecture 2 hours per week, lab 4 hours per week.

PREREQUISITE: DP 123.
CREDIT: Four semester hours.
OFFERED: SP

DP 126. "C" Language and UNIX

The study of C; a general purpose programming language developed by Bell Laboratories. The absence of restrictions and its implementation on the portable operating system, UNIX, makes it more convenient and effective than supposedly more powerful languages. Lecture, two hours per week; lab, two hours per week.

PREREQUISITE: CSI 103, or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

DP 220. Advanced Computer Programming

Advanced BAL, input-output control systems, macro and systems programming, tape (magnetic) and disk programming, tape and disk sorts, tape and disk compilers. Lecture 2 hours per week, seminar 1 hour per week, labs 4 hours per week.

PREREQUISITE: CSI 104
CREDIT: Five semester hours.
OFFERED: F

DP 221. Business Systems Design and Development

All aspects of designing a successful computer system including data processing organization, requirements of a system, data controls, system evaluation and implementation. Operation of an installation is also a part of the system design. Lecture, four hours per week.

PREREQUISITE: CSI 104.
CREDIT: Four semester hours.
OFFERED: SP

DP 222. On-Line Applications

This course is designed to provide knowledge of DOS/VSE in general. Advanced topics of CICS and DL/I will be covered with programming assignments for each. Lecture, one hour per week; seminar, one hour per week; lab, two hours per week.

PREREQUISITE: DP 220 and CSI 202
CREDIT: Three semester hours.
OFFERED: SP

DP 224. Data Processing Applications

Computer applications covered in this course includes both accounting applications (payroll, accounts receivable, etc.) and non-accounting applications (labels, scheduling, etc.). The course includes how computer systems are used in application development.

PREREQUISITE: Some knowledge of Data Processing.
CREDIT: Three semester hours.
OFFERED: SP

DP 225. RPG II and Advanced BASIC

This course is designed to give students a comprehensive knowledge of RPG II and BASIC programming. The students will design, code, compile, and test programs to solve problems with an emphasis in business. Advanced concepts in file organization, tables, and lists will also be covered. Lecture, one hour per week; seminar, one hour per week; lab, three hours per week.

PREREQUISITE: PC 129 or instructor approval.
CREDIT: Three semester hours.
OFFERED: SP

DP 226. Computer Informations Systems Field Project

Students will be assigned to an area computer center. The work will involve program preparation, documentation, and debugging. Students meet one hour per week with the instructor and spend a minimum of four hours per week on the job.

PREREQUISITE: CSI 203
CREDIT: Three semester hours.
OFFERED: SP

DP 227. Computer Operations Field Project

Students will be assigned to an area computer center. The work will involve computer and console operations, error-restart, and program execution. Students will meet one hour per week with the instructor and spend a minimum of four hours per week on the job.

PREREQUISITE: DP 124
CREDIT: Three semester hours
OFFERED: SU

COMPUTERS - PERSONAL COMPUTING

PC 121. LOGO

LOGO is a procedural and interactive computer language that has been successfully used by preschool thru college level students. Students are able to control the computer in self-directed ways even at first exposure to LOGO. This class provides an ideal starting point in computer programming concepts. Lecture, two hours per week; lab, two hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: On demand.

PC 123. Advanced dBASE III Plus

Advanced dBASE III Plus topics including programming with dBASE and networking with dBASE in a LAN (Local Area Network). Lecture two hours per week; lab two hours per week.

PREREQUISITE: PCD 120 or knowledge of dBASE
CREDIT: Three semeter hours
OFFERED: On demand

PC 124. Applications Using LOTUS 1-2-3

Designed for business people and home computer users who want to put the LOTUS 1-2-3 software to its fullest use. Covers advanced LOTUS 1-2-3 features and comprehensive application problems representing business, personal, and educational areas. Lecture two hours per week; lab two hours per week.

PREREQUISITE: PCI 122 or knowledge of LOTUS
CREDIT: Three semester hours
OFFERED: On demand

PC 126. Microcomputer Applications Software

In-depth coverage of the four major microcomputer applications: Spreadsheets, Graphics, Data Base, and Word Processing. Standard packages will be covered in detail.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

PC 128. Business Microcomputer Systems

This course is a "how to" approach for the first-time computer user. Included topics are: hardware survey, data preparation, applications software, simple programming, telecommunications, and basic systems considerations such as backup, security, user interface, and documentation. Several software packages will be introduced.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

PC 129. Programming in BASIC

Instruction in BASIC - Beginner's All-purpose Symbolic Instruction Code - language provides a simple and easily understood introduction to personal and business microcomputing. This course features problem solving techniques and verification of problem solutions. Lecture, two hours per week; lab, two hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

PC 221 - Computers and Programming for Teachers

An introduction to computers, programming, and software for elementary and secondary teachers. The course will discuss hardware and software selection and evaluation, designing educational software, and the implementation of computers in the classroom. Two hours of lecture per week; two hours of lab per week.

PREREQUISITES: PC 128 and PC 129
CREDIT: Three semester hours
OFFERED: On demand

PC 227. PASCAL for Problem Solving with A Microcomputer

Modern techniques for solving business or scientific problems using microcomputers will be introduced. These techniques will consist of top-down design, modular design, Pseudo coding, structures programming and bottom-up coding. PASCAL will be used to translate the problem solution into a microcomputer executable form. Lecture, two hours per week; lab, two hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

PC 229. BASIC and Business Applications

Principles of file organization. BASIC programming for creating and maintaining files. Sequential files, random files, tables, and lists are covered. Lecture, two hours per week; lab, two hours per week.

PREREQUISITE: PC 129 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand

COMPUTERS - PERSONAL COMPUTING
Open Entry, Open Exit, Self-Paced

PCA 121 - IBM Accounting Assistant

The IBM Accounting Assistant series enables the professional person, or small- to medium-sized business to take advantage of computerized accounting procedures. This course covers the general accounting portion of the Accounting Assistant series. Students will set up a general ledger system with integrated accounts receivable, accounts payable, and payroll. The many features of the IBM Accounting Assistant - General Accounting package will be reviewed from data input to check writing, and financial statement preparation. Individualized instruction - open entry.

PREREQUISITE: ACT 121
CREDIT: One semester hour
OFFERED: On demand

PCD 120. dBase III^{TM} Plus

dBase III Plus is a relational data base program that offers full data base management features and permits the creation of specific applications through using its programming capabilties. The program allows the user to create and update files, generate reports, and create applications complete with formatted entry and output. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCI 122. LOTUS 1-2-3^{TM}

LOTUS 1-2-3^{TM} is a software system that combines spreadsheet, graphics, and information management capabilities, creation of database, transformation of database information to spreadsheet, "what if" analysis, and graphical representation are covered. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCL 120. Beginning PASCAL

UCSD PASCAL is a specially designed PASCAL learning environment. Introductory features for writing and mantaining PASCAL programs. Includes coverage of the p-System operating systems. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCO 120. IBM-PC-DOS

PC-DOS is the operating system for the IBM personal computer. Topics covered include directories, file protection, copy file and disk, edit of files, formatting diskettes, erase files, combined commands. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCS 120. SuperCalc 3TM

SuperCalc 3 is a sophisticated electronic spreadsheet. It offers financial functions such as internal rate of return, payments, present and future values. SuperCalc 3 produces high-resolution graphics and provides extensive formatting features. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCW 120. IBM DisplayWrite 3TM

An introduction to Word Processing using a microcomputer. The DisplayWrite 3 Program will be used on the IBM PC. Basic text editing features such as inserting, deleting, moving, and copying text will be explored. The advanced functions of Merge, Global Search/Replace, and math will be demonstrated. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCW 121. WordStarTM

WordStar is a screen-oriented word processing system. It offers high performance and flexibility, ease of use for the beginner, and power for the professional. The program can be used to write, edit, and revise documents of length. WordStar combines all of the necessary functions to produce error-free professional documents. Individualized instruction - open entry.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: On demand.

PCW 123. WordPerfect

An introduction to word processing on the IBM PC using the WordPerfect program. The course is self-paced and is open entry. A tutorial type text is used.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: On demand

CRIMINAL JUSTICE

CRJ 100. Introduction to Criminal Justice

This course is a survey of the historical and philosophical background of criminal justice agencies, and how this background relates to segments of the criminal justice system at the present time. A systems approach is used in this analysis.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

CRJ 103. Juvenile Delinquency

This course deals with juvenile offender theory and the etiology of deviant behavior. Juvenile procedures and alternative dispositions are examined.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

CRJ 107. Introduction to Corrections

This is an introductory course dealing with the philosophy of corrections from arrest through adjudication, correctional facilities, parole, and probation. Changes in corrections will be considered with emphasis upon modern approaches.

PREREQUISITE: CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

CRJ 121. Police Patrol and Services

This course is a study of the patrol function as it relates to enforcement problems and the maintenance of social order. The use of police discretion at the patrol and administrative levels are examined.

PREREQUISITE: Concurrent enrollment in CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

CRJ 124. Investigative Photography

This course is an introduction to photography with emphasis on equipment, supplies, and the techniques of taking black and white and color pictures. The principles of good photographic documentation of evidence will be stressed through actual photographic assignments.

PREREQUISITE: CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

CRJ 126. Administration of Justice

This course analyzes what constitutes law and what constitutes crime. The nature of criminal responsibility and the criminal justice mechanism at work are examined.

PREREQUISITE: CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

CRJ 201. Criminal Investigation

This course will examine the fundamentals of investigation; crime scene applications; the recording, collection and presentation of evidence; investigative techniques and procedures; and follow-up case studies.

PREREQUISITE: CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

CRJ 202. Criminal Law

This course examines the components, the purposes, and the functions of criminal law. The Illinois Criminal Code is studied with emphasis placed upon identifying the elements of various crimes against a person and crimes against property. Students will be exposed to actual cases.

PREREQUISITE: CRJ 203 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

CRJ 203. Evidence and Criminal Procedures

This course examines procedures in the areas of search and seizure, authority to detain, confessions and interrogations, trial and right to have counsel.

PREREQUISITE: CRJ 201 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

CRJ 226. Police Community Relations

This course takes a human relations approach to exploring the complex factors involved in police-community relations. Good relationships between police practitioners and citizens is viewed as the key to positive police-community relations. The case approach to gaining insights and understandings into the police role, police professionalism, use of discretion, and individual rights is utilized in this course.

PREREQUISITE: CRJ 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

CRJ 227. Introduction to Criminalistics

This course is an introduction to scientific analysis; identification, collection, and preservation of physical evidence.

PREREQUISITE: CRJ 201 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

CRJ 228. Criminal Justice Internship

This is a practicum arrangement whereby each student receives credit for work experience in a job which is related to course work in the criminal justice area. In addition to learning applications of course material, students will be trained in responsibilities and attitudes. Through planned interrelation of learning experiences in the classroom and on the job, this training strives to make the student initially able to enter the job market. Forty hours work per week required of the interns.

PREREQUISITE: Sophomore standing and/or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SU

CRJ 229. Criminal Justice Seminar

This course is a seminar course in which criminal justice interns will meet with the internship coordinator to discuss their experiences. The seminar will also provide a forum by which the student interns can be assisted with problems and/or areas of concern related to their internship experiences.

PREREQUISITE: Concurrent enrollment in CRJ 228.
CREDIT: One semester hour.
OFFERED: SU

DENTAL ASSISTING

DLA 120. Dental Science I

This course is designed to acquaint the student with head and neck anatomy, oral anatomy, embryology, histology, and morphology.

PREREQUISITE: Admission to the Dental Assisting Program and ZOO 120.
CREDIT: Two semester hours.
OFFERED: F

DLA 121. Dental Materials and Lab Procedures

This course stresses the physical and chemical properties and manipulations of gypsum products, and restorative materials. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: Admission to the Dental Assisting Program.
CREDIT: Four semester hours.
OFFERED: F

DLA 122. Preventive Dentistry

This course is designed to provide the student with basic facts concerning overall health of the oral cavity. Identification of disease, methods of prevention, and nutrition and dietary counseling is included. Personal oral health is stressed. Students will prepare a preventative program for the dental office. Lecture, two hours per week.

PREREQUISITE: Admission to the Dental Assisting Program.
CREDIT: Two semester hours.
OFFERED: F

DLA 123. Pre-Clinical Orientation

This course introduces the students to the responsibilities of the dental assistant. Principles of positioning the patient, instrument identification and transfer, operation of air, water, and high velocity evacuation equipment and basic chairside assisting procedures are stressed. Dental terminology and materials are integrated throughout the course. Lecture, four hours per week; laboratory, four hours per week.

PREREQUISITE: Admissions to the Dental Assisting Program.
CREDIT: Six semester hours.
OFFERED: F

DLA 124. Dental Radiography I

This course consists of the study and practice of exposing radiographs commonly required in dental practice, and includes the processing, mounting, and filing of intro-oral radiographs. Biological effects of radiation and safety measures are emphasized. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: Admission to the Dental Assisting Program.
CREDIT: Two semester hours.
OFFERED: F

DLA 125. Dental Lab Procedures

This course stresses physical properties and applications of metals and waxes used in dentistry. Sharpening of instruments will be studied and practiced in the dental lab. The dental specialties of fixed and removable prosthodontics will be studied, stressing clinical and laboratory properties. Lecture, one hour per week; laboratory, three hours per week.

PREREQUISITE: DLA 121.
CREDIT: Two semester hours.
OFFERED: SP

DLA 126. Clinical Practice

Assignments will be to three clinical stations (private dental offices) to provide practical experience. Seminar, one hour per week; clinical, twenty-five hours a week.

PREREQUISITE: Second semester standing in the Dental Assisting Program.
CREDIT: Six semester hours.
OFFERED: SP

DLA 127. Supervised Dental Assisting Practice

This course gives the student actual clinical experience in four-handed sit-down dentistry. Through supervised clinical practice, an opportunity for developing competence and confidence in the utilization of dental assisting knowledge and skills will be provided to the student. Laboratory, two hours per week.

PREREQUISITE: Enrollment in or successful completion of all first semester DLA courses.
CREDIT: One semester hour.
OFFERED: From mid-semester fall term to mid-semester spring term.

DLA 128. Dental Office Management

Consideration will be given to speech and telephone techniques and communications. Usage of preventive recall systems and controlling the appointment book are covered. Patient clinical records are discussed in terms of preparation, filing, and confidentiality, which is stressed. Financial records, withholding taxes, collection of accounts, and payment of bills will be studied. Lecture, three hours per week.

PREREQUISITE: Admission to the Dental Assisting Program and BUE 107.
CREDIT: Three semester hours.
OFFERED: SP

DLA 220. Dental Science II

This course is designed to acquaint the student with pharmacology, anesthesiology, medical and dental emergencies, oral pathology, oral histology and embryology. Lecture, two hours per week.

PREREQUISITE: DLA 120.
CREDIT: Two semester hours.
OFFERED: SP

DLA 221. Radiology for Dental Assistants

This course covers radiation hazards, accepted hygiene techniques and techniques for taking full-mouth series of radiographs. It is intended for the already employed dental assistant as an introduction or refresher to current radiology techniques.

PREREQUISITE: Employed Dental Assistant
CREDIT: One semester hour.
OFFERED: V

DLA 224. Dental Radiography II

This course continues intensified practice in exposure of dental x-ray films and the interpretation of the films. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: DLA 124.
CREDIT: Two semester hours.
OFFERED: SP

DRAFTING

DFM 120. Mechanical Drafting I

A course in mechanical drafting including terms common to an engineering drawing, basic drawing and lettering techniques, and geometrical constructions. Lecture, one hour per week, laboratory, six hours per week.

PREREQUISITE: None.
CREDIT: .5 semester hours.
OFFERED: F

DFM 121. Mechanical Drafting II

A continuation of Mechanical Drafting I including technical sketching, pictorial sketching (isometrics & oblique), and an indepth study of multiview projection. Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: DFM 120 or equivalent industrial experience.
CREDIT: One semester hour.
OFFERED: F

DFM 122. Mechanical Drafting III

A continuation of Mechanical Drafting II including sectional and auxiliary views. Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: DFM 121 or equivalent industrial experience.
CREDIT: .5 semester hours.
OFFERED: F

DFM 123. Mechanical Drafting IV

A continuation of Mechanical Drafting III including dimensioning (customary system) and multiview projection in the production of a complete set of detail drawings and assembly. Lecture, one hour per week; laboratory, six hours a week.

PREREQUISITE: DFM 122 or equivalent industrial experience.
CREDIT: One semester hour.
OFFERED: F

DFT 121. Computer Aided Drafting I (Computervision)

A continuation of basic mechanical drafting including advanced multiview principles with advanced applications of dimensioning and tolerancing emphasizing geometrical and positional tolerancing. A study will be made of the requirements for working drawings including detailing and assembly drawings. Both the customary and the metric system of measurement will be used. Production drawings will be completed both "on the board" and with the use of Computervision's Personal Designer system (computer aided drafting). Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: DFM 120-123 or one year of H.S. Mechanical Drafting or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

DFT 122. Electronics Drafting

A course in techniques and general drafting with major emphasis on pictorial drawing, device symbols, production drawings, flow and schematic diagrams, printed circuits, miniaturization, industrial controls, and graphic representation. Lecture, one hour per week; laboratory, three hours per week.

PREREQUISITE: Enrolling in Electronics Technology Curriculum.
CREDIT: Two semester hours.
OFFERED: F

DFT 123. Machine Blueprint Reading

Machine blueprint reading is a course designed to progress logically from an introduction to blueprint reading through a study of the fundamental skills and concepts involved in reading, sketching and interpreting drawings. Lecture, three hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

DFT 125. Architectural Drafting

This course is designed to develop an understanding of drafting procedures in the preparation of architectural, civil, and construction drawings. Units of study will include graphic representation of residential and commercial buildings, site analysis, building codes, conventional symbols, spatial concepts, and the use of various materials related to construction. The basis of the course work will consist of the preparation of detail working drawings for construction purposes. Lecture, one hour per week; laboratory, five hours per week.

PREREQUISITE: Consent of instructor.
CREDIT: Three semester hours.
OFFERED: V

DFT 126. Blueprint Reading and Sketching for the Building Trades

A course designed to present concepts and principles involved in building construction with emphasis placed on the reading of architectural prints and sketching construction details.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: V

DFT 127. Welding Blueprint Reading

A course offered for those students enrolled in welding technology, which involves a study of the application of principles of multiview projection as they apply to blueprint reading and sketching. Major areas of study include sketching and shape description, size description, fasteners, types of fabrication prints involving detail drawings, assembly drawings, structural drawings, and lists of materials, welding symbols, and terminology as it applies to basic welding and basic machine shop. Lecture, one hour per week; laboratory, five hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

DFT 128. Development and Layout for Welders

A continuation of Welding Blueprint Reading involving the intersection and development of the major geometric shapes including cones, cylinders, prisms, pyramids, and transition pieces. Lecture, one hour per week; laboratory, five hours per week.

PREREQUISITE: DFT 127.
CREDIT: Three semester hours.
OFFERED: SP

DFT 129. Computer Aided Drafting II

A continuation of Computer Aided Drafting I including advanced computer graphics principles as they apply to Computervision's Personal Designer software. The course includes working in 3-D, advanced assembly and multiview drawings, plotting, and a study of advanced surfaces as they apply to computer graphics. Lecture, one hour per week; laboratory four hours per week.

PREREQUISITE: DFT 121 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP, V

ECONOMICS

ECN 100. Consumer Economics

Major emphasis is placed on budgeting, personal expenditures, finances, types of taxes, insurances, investments, and consumer legislation. Emphasis is on understanding the consumer's current role in our society and on ways of dealing with consumer problems.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

ECN 120. Fundamentals of Statistics

This course is designed as a fundamental course in statistics and presents the basic concepts and methods of using quantitative tools in business. Emphasis is placed on understanding methods and conclusions rather than on computational routine. Topics covered will include methods of data collection and presentation, frequency distributions, probability, hypothesis testing, time series, and index numbers.

PREREQUISITE: BUE 103.
CREDIT: Four semester hours.
OFFERED: On demand

ECN 122. Fundamentals of Economics

A general survey of the operation of the economic system, with reference to the business firm, the determination of price and output, the level of national income, conditions of competition, and current economic conditions. Specifically designed for one semester in economics at the undergraduate level.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand

ECN 203. Principles of Economics I

An introduction to the major areas of modern economic theory and public policy; national income theory, monetary theory and institutions, economic stability, and taxation.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ECN 204. Principles of Economics II

A continuation of Economics 203. An introduction to market structures, behavior of the firm, consumer demand, the pricing and employment of resources, international economics, and current economic problems.

PREREQUISITE: ECN 203.
CREDIT: Three semester hours.
OFFERED: F, SP

ECN 205. Business Statistics

An introduction of the modern theory and methodology of statistics in the areas of business and economics. Emphasis on frequency distributions, central tendency, probability, sample design, statistical inference, hypotheses testing, index numbers and their construction and use.

PREREQUISITE: MTH 106.
CREDIT: Three semester hours.
OFFERED: F, SP

ECN 220. Money and Banking

This course is designed to give an overview of the nation's financial system, an in-depth presentation of the structure and functions of the Federal Reserve System. Emphasis will also be given to elementary monetary theory, a review of stabilization policy, and the basic areas of international finance and the international monetary system.

PREREQUISITE: ECN 203.
CREDIT: Three semester hours.
OFFERED: On demand

EDUCATION

EDC 100. American Public School

This course covers the evolution of American education from colonial days to the present. Theories of prominent education are evaluated in relationship to contemporary American needs. Emphasis is placed on school structure, curriculum development, educational leadership, and problems of finance.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

EDC 200. Educational Psychology

This course covers the psychosocial principles underlying educational practices. Theories concerning cognitive and psychosocial development are studied with regard to curriculum, discipline, methodology, and culture. Application involves pre-schoolers, elementary, high school and special students.

PREREQUISITE: PSY 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F, SP

EDC 202. Child Development and Learning

This course is designed to give the future teacher a theoretical and practical basis in dealing with children at various levels. Emphasis is placed on the capacity of a child to benefit from the experience provided by various local elementary schools, high schools and special education programs. This weekly three hour lab experience and seminar involves the application of the principles of both child growth and development and educational psychology.

PREREQUISITE: PSY 100 or concurrent enrollment.
CREDIT: Six semester hours.
OFFERED: F, SP.

ELECTRICITY

ELE 120. Basic Industrial Electricity I

The first in a series of two basic electricity for Industrial Electricians. It includes a study of electricity from its basic nature through resistive circuits with AC and DC voltages applied. Practical applications are emphasized. Necessary mathematics is integrated. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

ELE 121. Basic Industrial Electricity II

A continuation of Basic Industrial Electricity I with the introduction of capacitive and inductive circuit elements. How they react to sinusoidal and unit step voltages. Practical application to industrial type circuits will be emphasized. Necessary mathematics is integrated. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: ELE 120 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SP

ELE 122. Electrical Machines I

Principles of operation and control of single phase and DC electrical machines, motors and generators, as they relate to industrial plant applications. It is recommended that this course be taken concurrently with ELE 124. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ELE 121 or consent of instructor.
CREDIT: Two and one-half semester hours.
OFFERED: F

ELE 123. Electrical Machines II

Principles of operation and control of three phase electrical motors and generators as they relate to industrial plant applications. It is recommended that this course be taken in conjunction with ELE 125. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ELE 122 or consent of instructor.
CREDIT: Two and one-half semester hours.
OFFERED: SP

ELE 124. Electrical Schematic Reading I

Interpretation of industrial plant electrical systems schematic diagrams for the diagnosis and repair of faults. It is recommended that this course be taken in conjunction with ELE 122. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ELE 121 or consent of instructor.
CREDIT: Two and one-half semester hours.
OFFERED: F

ELE 125. Electrical Schematic Reading II

Interpretation of Industrial Plant Electrical Equipment Schematics or the diagnosis and repair of faults. It is recommended that this course be taken in conjunction with ELE 123. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ELE 121 or consent of instructor.
CREDIT: Two and one-half semester hours.
OFFERED: SP

ELE 126. Electrical Troubleshooting

This course covers methods of finding and correcting faults in sequential process control systems including relay and microcontroller based systems. Lecture, two hours per week.

PREREQUISITE: A knowledge of basic electricity recommended.
CREDIT: Two semester hours.
OFFERED: SP

ELECTRONICS

ET 100. Introduction to Electronics

Designed to cover the electrical knowledge necessary for students who have a background in basic mathematics but who need not have had any background in electricity and who wish to pursue an interest in electronics. The course covers fundamental concepts of electricity, Ohm's Law, batteries, simple electrical circuits, DC compound and bridge circuits, electrical conductors, electromagnetism, alternating currents, inductance, reactance, basic electrical meters, and fundamental operation of electronic devices. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ET 120. Beginning Electronics

Basic theory and construction of semiconductors and tubes; operation and function of vacuum tubes and transistor circuits. Converting alternating current to direct current. Introduction to integrated circuit construction and operation. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ELE 121 or to be taken concurrently.
CREDIT: Two and one-half semester hours.
OFFERED: F

ET 122. Electronic Devices

Introduction to theory of vacuum tubes and transistors. Operation and analysis in basic circuit systems, such as amplification, detection, oscillation, rectification, and control circuits. Introduction to integrated communication circuits. Lecture two hours per week; laboratory, four hours per week.

PREREQUISITE: ET 125, ET 126 and MTH 129 or to be taken concurrently or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SP

ET 123. Applied Industrial Electronics

Study of power supplies, electronic timing devices, photo-electronic control and other transducer systems, welding control, SCR and TRIAC control of motor speed; gas type tubes, phase shifting control circuits; introduction to switching and logic circuits. Lecture, two hours per week; laboratory, one hour per week.

PREREQUISITE: ET 120 or equivalent.
CREDIT: Two and one-half semester hours.
OFFERED: SP

ET 125. DC Circuits

Course content will include basic electrical measurements: Ohm's Law, series, parallel, series-parallel, voltage and current dividers. Analysis of circuits with multiple sources using network theorems; including Thevenin's, Norton's Superposition, Kirchoff's Laws and delta-wye transformation, magnetic fields and devices; time-constant circuits. Lecture, two hours per week; seminar, one hour per week; laboratory, two hours per week.

PREREQUISITE: Entrance requirements to ET Program.
CREDIT: Four semester hours.
OFFERED: F

ET 126. AC Circuits

This course will deal with sine, square and saw-tooth wave-forms applied to resistor capacitor and inductor networks. Operation and function of pulse producing and measuring instruments. Capacitive and inductive reactance, impedance and impedance matching; transformer action. Series and parallel resonance, "Q" of the circuit. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: ET 125.
CREDIT: Three semester hours.
OFFERED: SP

ET 220. Linear Circuits

Theoretical and experimental analysis of discrete electronic component design; operation and construction as amplifiers and regulators of linear integrated circuits; methods of interfacing integrated circuits. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: ET 122 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

ET 221. Industrial Electronics

Introduction to the basic principles of Industrial Control Electronic Circuits. Topics covered include sensing devices, control of SCR and Triac circuits, timing circuits, phase control circuits, solid state control devices, welding control circuits, basic motor control circuits and systems, stepping motor operation and control, and servo systems. Lecture, three hours per week; laboratory, four hours per week.

PREREQUISITE: ET 222 or to be taken concurrently.
CREDIT: Five semester hours.
OFFERED: SP

ET 222. Digital Circuits

This course studies electronic circuits in the area of pulse generation, application and analysis, introduction to basic computer theory, computer circuits, logic circuits, clampers, switching and counter circuits; computer language, the binary system, boolean algebra, and mapping. Digital to analog conversions. Integrated logic system in design and applications. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: ET 220 or to be taken concurrently.
CREDIT: Four semester hours.
OFFERED: F

ET 223. Network Analysis

An in-depth study of the response of resistive, inductive and capacitive passive circuits that contain multiple sources of both D.C. and A.C. sinusoidal voltages. Lecture, three hours per week, laboratory, two hours per week.

PREREQUISITE: ET 125 and ET 126 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: F

ET 225. Shop Processes and Individual Problems in Electronics

The design, layout, packaging and fabrication of electronic equipment. Individual project required. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: ET 221 or concurrent registration.
CREDIT: Three semester hours.
OFFERED: SP

ET 226. Basic Micro-Wave Theory

This course is to provide the basic knowledge of micro-wave theory, instrument and equipment used in micro-wave measurements; study of wave guides; UHF tubes and oscillators, Kylstron; magnetrons, and traveling wave tubes; micro-wave antennas; principles of radar and micro-wave systems. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: ET 122.
CREDIT: Three semester hours.
OFFERED: As requested.

ET 227. Instruments and Measurements

A study of circuits used in electronic measurements; applications and theory of the circuits used in test instruments; capabilities and limitations of test instruments; and loading effects of the instruments. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: ET 122.
CREDIT: Two semester hours.
OFFERED: As requested.

ET 228. FCC License Preparation

A preparatory class for those desiring to obtain their second or first class FCC radiotelephone or telegraph licenses. Review FCC laws and electronic theory needed for successful completion of the required examination. A background in basic electronic theory is necessary for those trying for first and second class licenses. Lecture, three hours per week.

PREREQUISITE: Consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

ENGINEERING

EGR 100. Engineering Graphics I

A course in orthographic projection, auxiliary views, basic principles of descriptive geometry involving point, line and plane relationships, mining and civil engineering problems, concurrent vectors, charts and diagrams, and computer applications to graphics. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

ENGLISH COMPOSITION

* ENG 090. Pre-Rhetoric

A catch-up course for students with such serious basic writing problems or who are so out of practice at writing that they need a preparation course before attempting the first composition (ENG 101) or communication (ENG 124/ENG 125) course. Work focuses on framing effective sentences, organizing ideas into unified compositions, supporting related ideas with details, and developing better expression, diction and style. Reviews fundamentals of functions of grammar, usage, and punctuation mechanics. Not a transfer course.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

* ENG 091. Grammar, Usage and Mechanics

The purpose of the course is to overcome academic deficiencies in the areas of grammar, usage and mechanics. Sixteen hours of class attendance are required. Completion of assignments will be determined by test results, informal evaluation. The grade in this course does not count in the student's g.p.a.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* ENG 092. Sentence Development

This course deals with sentence structure and content, working with clarity, conciseness, and precision, elements not usually approached in English 091, which concerns itself with basic usage forms and sentence mechanics. Sixteen hours of class attendance are required. The grade in this course does not count in the student's g.p.a.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* ENG 094. Paragraph Development

This course teaches the principles of well-developed, coherent paragraphs containing clear, workable topic sentences, adequately ordered and detailed in their enlargement. It is a part of the writing sequence preparing students for English 101 or English 125. The grade in this course does not count in the student's g.p.a.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* NOTE: Credit for courses so marked will not apply to any degree or certificate.

ENG 101. English Composition I

English Composition I is designed to study and apply rhetorical principles of writing in developing effective sentences, paragraphs, and essays, with particular emphasis on writing expository prose.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ENG 102. English Composition II

A course designed to introduce students to the major types of literature and to train them in the analysis and discussion and critical evaluation thereof. Emphasis on interpretation and appreciation of fiction, poetry, and drama, and on the writing of interpretive and critical essays and a "long" research essay.

PREREQUISITE: ENG 101
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ENG 120. Grammar for Transcription

A course in the basics of English grammar principally for students enrolled in the secretarial science program. Students will review the basic skills in grammar, punctuation and usage through written exercises, discussion and lecture, workbook assignments, computer assisted instruction, and writing assignments.

PREREQUISITE: None. Open principally to students in secretarial science program.
CREDIT: Two semester hours.
OFFERED: F, SP

ENG 123. Business and Industrial Writing

Designed to meet the specialized writing skills of individual business and industries, the course will tailor each class to specific writing tasks requested by employers. Credit will be assigned appropriately for each section offered, as agreed upon by the college and the business or industry making the request.

PREREQUISITE: None
CREDIT: Variable, one-half to three semester hours.
OFFERED: Arranged

ENG 124. Communications I

A course for students in the various technological areas. Emphasis is placed on the basic principles of communication in observation of speaking, listening, and reading. A consideration in depth is given to the development of these skills.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ENG 125. Communications II

A course for students in the various technical areas. Emphasis is placed on the basic principles underlying written communications. Consideration of thought and form of expository writing, business letters, and technical writing is stressed.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

ENG 200. Technical and Business Writing

Designed for the student in baccalaureate technical and business programs, this course focuses on the types of on-the-job writing encountered in technical and business areas, emphasizing short and long report writing in the student's major, as well as practical, technical and business everyday written communication such as letters, abstracts, and personnel evaluations.

PREREQUISITE: ENG 102, or ENG 125, or BUE 222
CREDIT: Three semester hours.
OFFERED: F, SP, SU

FINANCE

FIN 120. Principles of Finance

An introductory finance course dealing with principles of financial management and control. Emphasis will be placed on the areas of financial analysis and return on investment, administration of assets, financial institutions, capital structure and cost of capital, short and long term financing; and short, intermediate and long-term debt financing.

PREREQUISITE: ACT 121
CREDIT: Three semester hours.
OFFERED: SP

FIRE SCIENCE

FST 120. Introduction to Fire Protection

An examination of the Fire Service, based on past and current practices. Particular emphasis is placed upon the future needs of the Fire Service and the career minded firefighter.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 121. Fire Hydraulics & Equipment

This course studies the basic properties of pumps, fluids, force, center of pressure, interpretation of reading from various kinds of monometers, pressure gauges, hydrostatic devices, fluids in motion, head calculations, pumping problems, friction loss, velocity of flow, use of pitot and venturi meters, water hammer, and sprinkler discharge rates.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 122. Hazardous Materials

A study of the fundamentals of chemistry and physics as applied to fire control. Classification of hazardous materials; basic laws regulating their use; types, storage, and transportation of chemicals are examined.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 123. Fire Science Apparatus

A study of the basic principles of fire apparatus maintenance and operation. Subjects covered include theory of combustion engines, brake and cooling systems, engine tune up, trouble shooting, and other theoretical and practical applications of fire service units.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 124. Rescue Practices

An examination of life-saving practices with respect to the fireman in the company and fire department. Rescue techniques and operations connected with large and small scale disaster requiring civil defense implementation are studied along with first aid techniques and types of diseases that affect breathing.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 125. Fire Suppression

An introduction to fire problems as they relate to building construction, fire protection, hazardous properties of materials, and fixed extinguishing systems. Institutional and industrial structures, previous to and during construction periods are examined along with the Laws, Codes, and Ordinances affecting such construction.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 220. Fire Administration

An introductory course for fire protection personnel. Topics covered will include fire department records, legal aspects, fire safety problems, and distribution of personnel and equipment.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 221. Fire Prevention

A course dealing with the practical application of techniques, procedures, responsibilities, and organization as applied to fire prevention. The process of organizing fire prevention campaigns, training inspectors, public relations in inspection, and the coordination with other governmental agencies is examined.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 222. Building Construction

A study of building construction as applied to fire science. Types of building material, simple blueprint reading, freehand sketching, fire resistance and flame spread rating floor layout, and case studies are included.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 223. Fire Fighting Tactics

An examination of the principles involved in coordinating fireground problems on company level. Fire situations are presented for analysis and study with accepted practices. Areas involved are: control and extinguishment of structures, waterfront, petroleum projects, chemicals, watershed, brush, grass, and other types of fire.

PREREQUISITE: FST 120 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 224. Fire Service Instructor I.

A beginning course in fire service instruction. Emphasis is placed upon preparing the student to conduct individual lessons on assigned topics. Satisfactory completion qualifies the student to take the State Certification test for Instructor I.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 225. Fire Service Instructor II.

A second course in fire service instruction. Emphasis is placed on developing lesson plans and supporting aids that the student will use in conducting both lessons and courses. Satisfactory completion qualifies the student to take the State Certification tests for Instructor II.

PREREQUISITE: FST 224 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 226. Fire Service Instructor III-A.

An advanced course in fire service instruction dealing with the determination of course objectives, the preparing of lesson plans, and the development of supportive aids. Supervision of such preparation is also a part of this course.

PREREQUISITE: FST 225 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

FST 227. Fire Service Instructor III-B.

A continuation of Fire Service Instructor III-A including techniques for testing and evaluation. Attention is also given to examination effectiveness and the analysis of test results. Successful completion qualifies the student to take the State Certification test for Instructor III.

PREREQUISITE: FST 226.
CREDIT: Three semester hours.
OFFERED: On demand.

FOOD SERVICES

FS 120. Applied Food Service Sanitation

This course is designed to assist the manager or potential manager of any food service operation to apply food service sanitation. Topics to be included are sanitation and health, sanitary food and food handling, safe food environment, sanitation and the customer, and sanitation management.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: On demand.

FOREIGN LANGUAGES: FRENCH

FEN 100. Conversational French

Introducing the basics of the language with emphasis on speaking and listening skills. An excellent supplement to the regular language sequence(s), since it gives additional practice in basic conversational patterns essential to communication across cultures. Can be taken prior to the regular language sequence(s) - 101 and following - or concurrently with any semester thereof (except 203 Advanced Composition and Conversation). Can also be taken on its own merits for non-language majors, those with non-professional interests, for purposes of tourism, business, cultural exchange, pleasure Provides basic conversational patterns, idiomatic vocabulary, basic grammar and syntax, and general cultural patterns.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

FEN 101. Elementary French

Emphasis on essentials of French grammar with structure and pronunciation drills in class and the language laboratory. Elementary conversation and reading.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

FEN 102. Elementary French

A continuation of French 101.

PREREQUISITE: FEN 101 or one year of high school French.
CREDIT: Four semester hours.
OFFERED: SP

FEN 201. Intermediate French

Review of French grammar as needed, reading of selected texts, oral and written practice continued in the language laboratory.

PREREQUISITE: FEN 102 or two years of high school French.
CREDIT: Four semester hours.
OFFERED: F

FEN 202. Intermediate French

Continuation of FEN 201.

PREREQUISITE: FEN 201 or three years of high school French.
CREDIT: Four semester hours.
OFFERED: SP

FEN 203. Composition and Conversation

Emphasis on oral and written proficiency, study of idiomatic expression and current usage. Use of language laboratory for preparation.

PREREQUISITE: FEN 202 or three years of high school French (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: F

FEN 204. Survey of French Literature

Selected reading of the best French literary works from the beginning to the present with use of oral and written reports.

PREREQUISITE: FEN 202 or three years of high school French (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: SP

FOREIGN LANGUAGES: GERMAN

GER 100. Conversational German

Introducing the basics of the language with emphasis on speaking and listening skills. An excellent supplement to the regular language sequence(s), since it gives additional practice in basic conversational patterns essential to communication across cultures. Can be taken prior to the regular language sequence(s) - 101 and following - or concurrently with any semester thereof (except 203 Advanced Composition and Conversation). Can also be taken on its own merits for non-language majors, those with non-professional interests, for purposes of tourism, business, cultural exchange, pleasure Provides basic conversational patterns, idiomatic vocabulary, basic grammar and syntax, and general cultural patterns.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP, SU

GER 101. Elementary German

A study of the basic structures of grammar, conversation, pronunciation, and composition. Selected reading. Language laboratory is required.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

GER 102. Elementary German

Continuation of German 101.

PREREQUISITE: GER 101 or one year of high school German.
CREDIT: Four semester hours.
OFFERED: SP

GER 201. Intermediate German

This course includes review and further study of grammar concepts, continued oral practice, simple conversation and selected readings. Laboratory practice is required.

PREREQUISITE: GER 102 or two years of high school German.
CREDIT: Four semester hours.
OFFERED: F

GER 202. Intermediate German

Continuation of German 201. Laboratory practice is required.

PREREQUISITE: GER 201 or three years of high school German.
CREDIT: Four semester hours.
OFFERED: SP

GER 203. Composition and Conversation

Composition and conversation based on variety of readings; modern German authors, newspapers and magazines, and selected short texts to illustrate points of grammar.

PREREQUISITE: GER 202 or three years of high school German (or consent of instructor).
CREDIT: Three semester hours
OFFERED: F

GER 204. Survey of German Literature

Continuation of German 203.

PREREQUISITE: GER 203 or three years of high school German (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: SP

FOREIGN LANGUAGES: ITALIAN

ITL 100. Conversational Italian I

Introducing the basics of the language, with emphasis upon speaking and listening skills. An excellent introduction to the language; provides practice in basic conversational patterns essential to communication across cultures. Recommended for prospective language majors and those with non-professional interests for purposes of tourism, business, cultural exchange, and pleasure. Focus upon idiomatic vocabulary, basic grammar and syntax, and general cultural patterns.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP

ITL 100. Conversational Italian II

A continuation of Italian 100, with additional and more intensive focus and practice. Although not required, Italian 100 is highly recommended prior to this course.

PREREQUISITE: None
CREDIT: Three semester hours
OFFERED: F, SP

FOREIGN LANGUAGES: SPANISH

SPN 100. Conversational Spanish

Introducing the basics of the language with emphasis on speaking and listening skills. An excellent supplement to the regular language sequence(s), since it gives additional practice in basic conversational patterns essential to communication across cultures. Can be taken prior to the regular language sequence(s) - 101 and following - or concurrently with any semester thereof (except 203 Advanced Composition and Conversation). Can also be taken on its own merits for non-language majors, those with non-professional interests, for purposes of tourism, business, cultural exchange, pleasure Provides basic conversational patterns, idiomatic vocabulary, basic grammar and syntax, and general cultural patterns.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

SPN 101. Elementary Spanish

Study of the fundamentals of the language necessary for the understanding, speaking, reading, and writing of Spanish. Practice in pronunciation from dialogues and pattern practices. All students are required to work in the language laboratory.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

SPN 102. Elementary Spanish

Continuation of Spanish 101.

PREREQUISITE: SPN 101 or one year of high school Spanish.
CREDIT: Four semester hours.
OFFERED: SP

SPN 201. Intermediate Spanish

Development of ability to speak Spanish through conversational exercises. Development of listening habits through films, filmstrips, tapes, and records. Improvement of reading ability and writing skills. Review of skills acquired in previous courses in Spanish. Review and expansion of grammar patterns.

PREREQUISITE: SPN 101 and 102 or two years of high school Spanish.
CREDIT: Four semester hours.
OFFERED: F

SPN 202. Intermediate Spanish

Development of ability to speak Spanish through conversational exercises. Development of listening habits through films, filmstrips, tapes and records. Improvement of reading ability and writing skills. Review of skills acquired in previous courses in Spanish. Review and expansion from a variety of grammar patterns. Practice becomes more intensive and students are expected to achieve a level of Spanish closer to that of a native speaker.

PREREQUISITE: SPN 201
CREDIT: Four semester hours.
OFFERED: SP

SPN 203. Composition and Grammar

An advanced level composition and conversation course based upon a cultural approach. Grammar is reviewed extensively. There is an introduction to reading advanced Spanish selections, literacy and otherwise.

PREREQUISITE: SPN 202 or three years of high school Spanish or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

SPN 204. Survey of Spanish Literature

Study of representative Spanish authors and their work.

PREREQUISITE: SPN 202 or three years of high school Spanish (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: SP

SPN 205. Survey of Spanish-American Literature

Study of representative authors of Latin-American countries and their works.

PREREQUISITE: SPN 202 or three years of high school Spanish (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: SP

GENERAL TECHNOLOGY

GNT 110. Industrial Production Techniques

This course is designed to meet the needs of industry and industrial employees for specialized education experiences. Each class will be individualized to a particular set of needs and a credit value assigned for each section offered. Typical examples include inspection and measuring techniques, tool set-up, and machine operation techniques. This course may be repeated for a maximum of six semester hours.

PREREQUISITE: None.
CREDIT: Variable, one-half to three semester hours.
OFFERED: As requested.

GNT 120. Technical Orientation

This course provides an overview of industrial organization so that the student, as an employee, understands how companies are organized and where the employee fits into the organization. In addition, the decision making process in industry is studied.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: Variable

GEOGRAPHY

GEG 090. The Earth's Geography

A basic geographic study in understanding how man lives on the physical earth. Emphasis is upon weather elements, map reading, agriculture and industry, the earth in the solar system and man's population in relation to land and sea masses. Lecture, two hours a week; seminar, one hour a week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: V

GEG 101. Physical Geography I

An investigation into place location, earth-sun relationships and the earth's atmosphere. Emphasis will be placed upon the composition and dynamics of the earth's atmosphere and the world's climates. Weather and climatic phenomena will be interpreted and applied to daily living. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F, SP

GEG 102. Physical Geography II

An investigation into place location and the origin and development of the earth's surface. Environmental problems, stream action, glaciation, mountain building, soil and vegetation relationships, and coastal development will be studied. Emphasis will be placed upon crustal and landform development. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F, SP

GEG 103. Cultural Geography

The emphasis is on man, his origins, development, and world-wide distribution. How and where did man emerge from pre-history, from the forest to the garden, then to the city, and on to moon and space? Man will be studied by comparing his similarities and differences within and among geographic areas, especially nations and continents. Lecture, two hours per week; seminar, one hour per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

GEG 104. World Regional Geography

The study of landform distribution and how man has attempted to impose his will upon continents. Climatic variations, diversity of landforms, distribution and significance of hydrographic features, ever-varying political patterns, resource distribution, and industrial utilization are studied regarding their similarities and differences within and between nations and continents. Lecture, two hours per week; seminar, one hour per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

GEG 105. Introduction to Astronomy

Astronomy, one of mankind's oldest intellectual pursuits, continues to both intrigue and awe man, even after 5,000 years. This course is designed to meet the needs of those students who merely have a cursory interest in the Where, What, and How of cosmic phenomenon such as the Sun, Moon, Planets, Stars, Meteors, Comets, and Constellations. Also, we will speculate on the Why and When of Black Holes, and the possibility of Life in Space. Weather permitting, we will have laboratory sessions on stellar observational equipment and techniques. Lecture, two hours per week; laboratory, two hours per week; seminar, one hour per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F, SP

GEG 107. Planetary & Space Science

A survey of space and time, exploring past, present, and future development of our universe and solar system. Subjects included are sun, moon, planets, stars, meteors, comets, constellations, galaxies, quasars, and blackholes. Astronomy, being interdisciplinary science, will also cover concepts dealing with biology, geology, and religion. (For non-geography/-geology majors.)

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

GEOLOGY

GEL 106. Introduction to Oceanography

The course focuses on the marine environment as a unique feature of the planet Earth and investigates areas of intense and public concern: the pervasiveness of the ocean and its effect on the Earth's weather; its stunning physical size and diversity of contained life forms; its contributions to the physical and historical development of man; its impact on geopolitical and economic matters; the impact of oceanic pollutants, and the potential exploitation of marine resources.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: V

GEL 108. Physical Geology

An introduction to the study of the Earth as it is carried on by geologists today. Geological principles and processes dealing with geomorphology, crustal movements, rock and mineral identification, volcanism, and sedimentation are some of the topics covered. Experience in aerial photo and topographic map interpretation is provided in laboratory exercises. Lecture, two hours a week, seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F, SP

GEL 109. Historical Geology

An introductory study into the origin and structure of the earth. Emphasis will be placed on North American, dealing with the growth of continents, and mountain building. A study of evolution changes occurring in plant and animal life as documented by fossil remains. Interpretation of geologic forces by means of topographic maps and geologic colios. Field trips are an integral part of the course. Lecture, two hours a week; seminar, one hour a week; laboratory, three hours a week.

PREREQUISITE: GEL 108.
CREDIT: Four semester hours.
OFFERED: SP

HEALTH, PHYSICAL EDUCATION AND RECREATION

HPR 100. Wellness

A course designed to help the student understand wellness as a way of life designed to promote the highest level of health, fitness, and well-being possible during all the years of the individual's life.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F, SP

HPR 101. Wellness Lab

A course designed to help the student appraise his/her own level of physical fitness as it applies to the total concept of wellness. Each student will write and actively take part in a personal fitness program. Laboratory, two hours per week.

PREREQUISITE: HPR 100, or concurrent enrollment in HPR 100.
CREDIT: One semester hour.
OFFERED: F. SP

HPR 103. Personal and Community Hygiene

This course includes a study of community health problems caused by pollution, communicable diseases and chronic illness. It considers personal problems caused by malnutrition, drugs and emotional illness. Current developments in health science are discussed. One lecture and one seminar per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: F, SP, SU

HPR 104. First Aid

A course designed to provide the student with knowledge and skills needed in most situations when emergency first aid care is needed and medical assistance is not excessively delayed. Students passing the course will receive American National Red Cross Certification in Standard First Aid and Personal Safety.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: F, SP

HPR 107. Introduction to Recreation

This course serves as an introduction to the field of Recreation. It covers the history of the Recreation and Parks movement; the nature of the recreation experience and its importance to the individual; the influence of leisure on society; and the scope of Recreation Service Delivery Systems on a public, private, voluntary, and commercial level.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

HPR 108. Principles of Camping

This course covers the history of the organized camping movement and the operation of organized camps today; the skills and equipment needed for enjoyable and safe camping; and current issues and trends in the field of organized camping. The course includes an overnight camping trip.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

HPR 109. Introduction to Therapeutic Recreation

An overview of the field of Therapeutic Recreation: the history, philosophy and concepts, characteristics of the social populations served, settings for Therapeutic Recreation Service, and the examination of the various roles performed by the Therapeutic Recreation Professional.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: V

HPR 121. Recreation for Older Adults

Study of the organization and administration of Recreation programs for older adults. The course includes a survey of programs for Seniors in a variety of settings. The concepts of aging as a biological and social process will be explained. Course emphasis is on program development, staff training, activity adaption, and program evaluation.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: V

HPR 200. Professional Orientation

A course designed to teach the appreciation of sports, recreation, health, and safety in modern life. Required for students majoring in physical education. Lectures and recitations, two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: F

HPR 201. Coaching of Basketball

A course in the fundamentals of basketball with emphasis on offensive and defensive skills, techniques, history of the game. Lectures and recitations two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP

HPR 202. Coaching of Football

A course in the fundamentals of football with emphasis on skills, rules and strategy.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP

HPR 203. Coaching of Baseball

A course in the fundamentals of baseball with emphasis on offensive and defensive skills, knowledge of the rules, training and practices, officiating techniques, history of the game. Lectures and recitations two hours per week.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP

HPR 204. Officiating Football

A course providing instruction in the rules of and techniques for officiating football.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F

HPR 205. Officiating Basketball

A course providing instruction in the rules of and techniques for officiating basketball.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: SP

HPR 206. Officiating Baseball and Softball

A course providing instruction in the rules of and techniques for officiating baseball and softball.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: SP

HPR 207. Officiating Volleyball

A course providing instruction in the rules of and techniques for officiating volleyball.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F

HPR 208. Physical Education Activities for Elementary School Children

A course designed to present the activities involved in physical education for elementary school children. Progression within the activities and techniques of organization will be included.

PREREQUISITE: None
CREDIT: Two semester hours
OFFERED: F

HISTORY

HIS 100. History of Western Civilization I

An introductory course dealing with an analysis of the political, economic, social and cultural events and achievements of Western Civilization. The course begins with early man and ends with the Middle Ages. Special emphasis will be placed on early man, Sumer, Egypt, Greece, Rome and the Middle Ages.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

HIS 101. History of Western Civilization II

An introductory course dealing with an analysis of the political, economic, social and cultural events and achievements of Western Civilization. The course begins with the Renaissance and ends with the aftermath of World War II. Special emphasis will be placed on such developments as the Renaissance, the Reformation, the Enlightenment, the French Revolution, World War I, World War II and its aftermath.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

HIS 110. Study of Utopian Societies

A study of man's concepts of the ideal society. The course will consist of a brief historical perspective of utopian societies, a utopian work to be read each week, appropriate films and class discussion.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: On demand.

HIS 200. United States History to 1865.

This course is designed to give students an understanding of the history of the United States to 1865. It does this through a consideration of: European background, the Age of Exploration and Colonization, the American Revolution, the Articles of Confederation and the Constitution, Jeffersonian Democracy, Jacksonian Democracy, and the coming of the Civil War.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

HIS 201. United States History from 1865

This course is designed to give students an understanding of the history of the United States from 1865 to the present. It does this through a consideration of: Reconstruction, the Period 1876 to 1900, American Imperialism, the Progressive Era, Woodrow Wilson and World War I, the Roaring Twenties, the New Deal, World War II, and 1945 to the present.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

HOME ECONOMICS

HOM 100. Nutrition

This course deals with the basic scientific principles of nutrition, the application of these principles to the maintenance of optimum health, and the adaptation of the normal diet for prevention and treatment of disease.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

HOM 101. Food Preparation

An examination of the theory and practical application of principles of food preparation. Nutrient retention of foods subjected to various storage and preparation procedures are also considered.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

HOM 102. Family Living

An analysis of the contemporary American family, placing emphasis on the family interactions which largely dictate the child's behavior and way of relating to people. Included is knowledge of other cultures and our past family history to better understand present day conditions and family trends. Varying life styles are also of concern.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

HOM 103. Personal Development

A study of one's personality, habits, and ability to project into the world of today. Appropriate attire, adjusting to the demands of society, and an awareness of these and other factors in getting and keeping a job are considered.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

HOM 104. Beginning Clothing

This course concerns itself with basic fundamentals of the selection of fabrics and patterns, fitting, and clothing instruction techniques; and is designed for the student with little or no sewing experience.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

HOM 105. Clothing Construction

This course is for students with sewing experience. More difficult patterns, fabrics, and construction techniques will be used.

PREREQUISITE: HOM 104 or its equivalent.
CREDIT: Three semester hours.
OFFERED: On demand.

HOM 120. Nutrition for the Young Child

This course reviews the basic scientific principles of nutrition and the application of these principles to the special needs of the growing infant, toddler, and pre-school child.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

HUMANITIES*

HUM 101. Appreciation through Art

This course presents to the non-major a broad appreciation of and familiarity with the basic concepts and materials of the visual arts, as well as a brief history of world art.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F. SP

HUM 102. Appreciation through Music

How to listen to and appreciate music; the art of music and its materials; instruments and musical forms. Covers two historical periods of music--Classical and Romantic. Includes listening, lecture, discussion.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP

HUM 103. Appreciation through Theatre

An Appreciation of theatrical production, through study, observation, and critical analysis, designed to reveal the theatre as a necessary human activity.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F. SP

HUM 104. Readings in Fiction

This course is designed to acquaint the student with some masterpieces of fiction. The student will learn the pleasures of reading closely and appreciating the subtleties of the narrative art.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP

HUM 105. Readings in Logic

This course concentrates upon the practical application of logical principles and methods to the recognition, analysis, evaluation, and construction of arguments in natural language.

PREREQUISITE: None
CREDIT: One semester.
OFFERED: F, SP

HUM 106. Readings in Drama

An introduction to a selection of masterpieces in drama. Emphasis on careful reading, analysis, and appreciation of individual works; limited to world drama produced in the nineteenth and twentieth centuries.

PREREQUISITE: None
CREDIT: One semester.
OFFERED: F, SP

HUM 107. Special Topics in the Humanities and Fine Arts

A study of timely and specific problems in the humanities and fine arts (art, drama, foreign languages, literature, music, philosophy, theatre) presented from an interdisciplinary view through directed readings, discussion, projects, or field trips. Specific topics vary from term to term.

PREREQUISITE: None
CREDIT: One semester
OFFERED: F, SP

* The courses listed as HUM have been designed to meet the Humanities requirements of specific programs for the A.A.S. degree. While any student may enroll in these courses for overall elective credit, please be advised that none meets the general education Humanities requirement for the A.A. or A.S. degree. Each course usually meets two hours per week for eight weeks.

INDUSTRIAL MECHANICS

IM 120. Equipment Maintenance I

Emphasis will be placed on industrial equipment and basic principles applicable to it. Measurement, force weight, mass and conversion ratios, tension, compression, bending and torque. Principles of clutches and brakes, types and use, lubrication and lubricants, and rigging. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: SP

IM 121. Equipment Maintenance II

Power transmission, including gear reducers, chain and belt drives, gearing, ratios and proportions, levers and mechanical advantage, couplings, friction, bearings, kinds and uses. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: IM 120 or equivalent.
CREDIT: Two semester hours.
OFFERED: F

IM 122. Introduction to Electro-Mechanics

A survey of basic concepts in electro-mechanics as they apply to the work of an industrial electrician. Areas to be covered will include: force, torque, energy, electrical conduction, radiation, light measurement, electro-mechanical transducers of heat, sound, and light. Lecture, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F

IM 221. Control Instrumentation

A study of the instruments, circuits, and applications of automatic, mechanical, temperature control. Lecture, three hours per week; laboratory, three hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: F

INSURANCE

INS 120. Principles of Insurance

This course is designed as a broad introduction to the areas of insurance. Emphasis is placed on the nature and purpose of insurance, insurance and the law, types of insurance, types of insurers, and regulation of the insurance industry.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

INS 121. Life & Health Insurance

This is an introductory level course designed to familiarize students with the basics of life and health insurance. Topics covered will include the economic bases of life and health insurance, types of life and health insurance, group policies, business uses of life insurance and structure of the life and health insurance industries. This course meets the Department of Education and Registration requirements for taking the Insurance Producers exam.

PREREQUISITE: Some knowledge of
insurance
CREDIT: Three semester hours.
OFFERED: On demand

INS 122. Property and Casualty Insurance

This course is designed to introduce the basic concepts of property and casualty insurance. Principles involved in covering different exposures to financial loss are emphasized. Also covered are policies and forms traditional in the United States insurance industry. Methods of packaging and effects on insurance coverage are presented to give a complete understanding of principles and procedures. This course meets the Department of Education and Registration requirements for taking the Insurance Producers exam.

PREREQUISITE: Some knowledge of
insurance
CREDIT: Three semester hour.
OFFERED: On demand.

JOURNALISM

JRN 101. Introduction to Mass Media

A survey of the historical, sociological, economic, political and intellectual contexts of the media. Emphasis on criticisms and challenges to newspapers, magazines, radio, television, and films.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

JRN 102. Reporting

Instruction and practice in the skill of reporting, journalistic ethics, writing copy for the mass media.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

JRN 103. Advanced Reporting

This course presents the instruction, practice, and laboratory experience in advanced techniques of reporting; with emphasis on public affairs, interpretations, and investigation. Lecture, two hours a week; laboratory, two hours a week.

PREREQUISITE: JRN 103
CREDIT: Three semester hours
OFFERED: V

LITERATURE - AMERICAN

* LIA 203. Survey of American Literature to 1855

Survey of American Literature from the Colonial Period to 1855. A consideration of representative major writers, the significance of their contributions and influence. Attention also to the social, economic, and political milieu and influences upon literature.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: Three semester hours.
OFFERED: F, SP, SU

* LIA 204. Survey of American Literature from 1855

A continuation of the survey described for LIA 203 from 1855 to the present. survey of American Literature from 1855 to the present. A consideration of representative major writers, the significance of their contributions and influence. Attention also to the social, economic, and political milieu and influences upon literature.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: Three semester hours.
OFFERED: F, SP, SU

LITERATURE - ENGLISH

* LIE 201. Major English Writers I

A study of the principal works and writers of England from the Anglo-Saxon period to 1700, with special attention to political, social, and philosophical background.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: three semester hours.
OFFERED: F, SP, SU

* LIE 202. Major English Writers II

A continuation of the subject and material offered in Major English Writers 201, beginning with writers of the eighteenth century and concluding with the twentieth.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: Three semester hours.
OFFERED: SP, SU

LIE 205. An Introduction to Shakespeare I

A consideration of the development of Shakespeare's dramatic genius through a study of selected comedies, tragedies, and chronicles.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: Three semester hours.
OFFERED: F, SU

LIE 206. An Introduction to Shakespeare II

A continuation of the subject material offered in An Introduction to Shakespeare 205, with special emphasis on the great tragedies and the later comedies.

PREREQUISITE: ENG 101 and 102.
(May be taken concurrently with
ENG 102 upon consent of the
division chairperson).
CREDIT: Three semester hours.
OFFERED: SP, SU

LITERATURE - GENERAL

* LIG 201. Masterpieces of European Literature I

Survey of European literature from the ancient Greeks to the Renaissance. Consideration will be given to major representative writers and the significance of their contributions. Literary, social, historical, and philosophical backgrounds will be included.

PREREQUISITE: ENG 101 and 102. (May be taken concurrently with ENG 102 upon consent of the division chairperson).
CREDIT: Three semester hours.
OFFERED: F, SU

* LIG 202. Masterpieces of European Literature II

Survey of European literature from the neoclassical period to the twentieth century. Consideration will be given to major representative writers and the significance of their contributions. Literary, social, historical, and philosophical interrelationships, problems, and issues will be included.

PREREQUISITE: ENG 101 and 102. (May be taken concurrently with ENG 102 upon consent of the division chairperson).
CREDIT: Three semester hours.
OFFERED: SP

LIG 203. Mythology

The classical myths of Greece and Rome; their nature origins, interpretations, influence, relevance, and use in the modern world. Designed to enable the student to more fully appreciate and understand the use of classical mythology in literature, art, and music.

PREREQUISITE: ENG 101 and 102. (May be taken concurrently with ENG 102 upon consent of the division chairperson).
CREDIT: Three semester hours.
OFFERED: SP, SU

LIG 205. Introduction to Fiction

Designed to acquaint the student with a selection of masterpieces of fiction. The emphasis will be on pleasures and subtlety of the details and narrative artistry contained in the novels and short stories of the 19th and 20th centuries. The course is less a historical survey than an intense appreciation of individual works of art.

PREREQUISITE: ENG 101 and 102. (May be taken concurrently with ENG 102 upon consent of the division chairperson).
CREDIT: Three semester hours.
OFFERED: F, SP, SU

LIG 206. Science Fiction

A study of a major type of "popular literature", the course closely investigates the creation of futuristic fiction, its techniques and forms. Extensive reading in both short stories and novels will develop student's abilities to understand how such literature contributes to the western literary tradition. Two sci-fi movies are included in order to study this literature in a popular medium.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

LIG 207. Drama and Poetry

A study of major plays from the ancient Greek to the present day, plus a survey of the major types of poetry.

PREREQUISITE: ENG 101 and 102. (May be taken concurrently with ENG 102 upon consent of the division chairperson).
CREDIT: Three semester hours.
OFFERED: V

* NOTE: Those courses so marked (*) meet the general education Humanities requirement for the A.A. and A.S. degrees

MANAGEMENT

MGT 123. Owning and Operating a Small Business

A realistic approach to how and why small business succeed or fail. The pitfalls of business that lead to bankruptcy and how to overcome them. Small business as part of the total community and the need for full participation on the part of small business. How to determine the price of goods and services and yet be competitive in a price conscience world.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

MGT 201. Principles of Management

A study of the nature and functions of management as well as the concepts, skills, and techniques used in this field.

PREREQUISITE: Students enrolling management should have second year standing or business experience, or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F, SP

MGT 221. Personnel Management

A study of the principles and procedures associated with the management of human resources in the business environment.

PREREQUISITE: MGT 201.
CREDIT: Three semester hours.
OFFERED: On demand.

MGT 222. Principles of Supervision

A practical introduction to first line supervision. Emphasis will be given to appropriate topics including: leadership, organization, selection and evaluation of employees, safety and employee motivation.

PREREQUISITE: MGT 201 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: On demand.

MARKETING

MKT 101. Principles of Marketing

An introductory course in fundamentals of marketing, the nature of competition, basic marketing problems, and policies of business organizations and the planning of marketing.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

MKT 122. Salesmanship

A study of the fundamentals and techniques of successful selling. Included are such topics as: the place of the salesman in society, and in our competitive economy; developing the sales personality; and the "Selling Cycle". Emphasis is placed on creative selling, and the salesman's obligation to himself, his organization, and to his customer. Students develop demonstration and sales projects.

PREREQUISITE: MKT 101
CREDIT: Three semester hours.
OFFERED: SP

MKT 221. Principles of Advertising

A study of current trends and recent research in advertising. Planning , creation, and use of advertising and how it relates to the economy and marketing. Evaluation of newspaper, radio, television, outdoor, specialty advertising and direct mail to find the most economical and effective method of delivering the message to the desired market.

PREREQUISITE: MKT 101.
CREDIT: Three semester hours.
OFFERED: F

MKT 223. Principles of Retailing

A basic course designed to give students a broad understanding of principles, methods, policies, problems, and functions of retailing. The development and present status of the retailing structure. Consideration of organization and operations of retail stores and service establishments of various types.

PREREQUISITE: MKT 101.
CREDIT: Three semester hours.
OFFERED: SP

MKT 227. Marketing Internship

This is a practicum arrangement whereby each student receives credit for work experience in employment which is related to course work in the Marketing area. In addition to learning applications of course material, students will be trained in responsibilities and attitudes required by business. Through planned interrelation of learning experiences in the classroom and on the job, this training strives to make the student initially able to enter the job market at the Mid-Management level. Fifteen hours work per week required of the interns.

PREREQUISITE: Twenty-eight hours in the Marketing program to include MKT 101, and MKT 122.
CREDIT: Three semester hours.
OFFERED: F

MKT 228. Marketing Internship

This is a continuation of the practicum begun in Marketing Internship 227. Fifteen hours work per week required of the interns.

PREREQUISITE: MKT 227 (or consent of instructor).
CREDIT: Three semester hours.
OFFERED: SP

MATHEMATICS

Proper placement in mathematics courses will be determined by the student's mathematical background and by a placement test. Therefore, when planning programs and mathematics course selection, it is important to check course prerequisites including placement exam requirements as listed with the course description.

MATHEMATICS - COLLEGE PREPAREDNESS

MTH 094. Arithmetic

This course is designed for those students who would like a review of arithmetic before beginning the Basic Algebra course or for those who would like to improve their arithmetic skills. Topics to be studied include numeration, whole numbers, fractions, decimal numerals, percent, exponents, ratio, and proportion. An individualized study approach is used. Grade in this course is not computed in g.p.a. nor applicable to any degree or certificate program for graduation.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

MTH 097. Basic Algebra

This is the first course in Algebra. Topics of study include: linear and quadratic equation, literal and quadratic expressions and polynomials, algebraic fractions, factoring, graphing, systems of equations, radicals and exponents. An individualized study approach is used. Grade in this course is not computed in g.p.a. nor applicable to any degree or certificate program for graduation.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MTH 098. Basic Geometry

This is the beginning course in geometry. Topics of study include algebraic and geometric sets, angles, triangles, surface area and volumes of selected solids, quadrilaterals, circles, congruence, similarity, basic construction, and area. Emphasis is on applying knowledge of geometry relations to solve problems rather than on rigorous development of geometric relations. An individualized approach is used. Grade in this course is not computed in g.p.a. nor applicable to any degree or certificate program for graduation.

PREREQUISITE: MTH 097 or equivalent.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MATHEMATICS

MTH 100. Fundamentals of Mathematics

Intended as a survey course for those students interested in developing an appreciation of the role of mathematics and mathematical methods in contemporary thought. Emphasizes the understanding and application of mathematics. The course includes the study of logic, probability statistics, and other selected topics such as consumer math, linear programming, metric measurement, computer topics, sets, and number systems. This course does not serve as the prerequisite for any other mathematics course.

PREREQUISITE: One year of H.S. algebra or equivalent (MTH 097). Proficiency exam available.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MTH 101. Intermediate Algebra

For those students who want to acquire a better understanding of the basic algebraic concepts and to improve their manipulative skills before advancing to more complex mathematical concepts. Topics to be studied include: fundamental algebraic operations, linear, quadratic, and higher-degree equations, systems of equation, radicals, and logarithms. The students may choose a traditional lecture class or an individualized approach where they progress at their own rates. Credit will not be given for both this course and MTH 102.

PREREQUISITE: One year of H.S. algebra and plane geometry or the equivalent (MTH 097 and 098). Satisfactory score on the placement examination.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MTH 102. Intermediate and College Algebra

This course covers topics that are normally included in Intermediate Algebra and College Algebra. Credit is not given for both this course and for MTH 101 or MTH 103 or MTH 105. Students with less than a B average in Basic Algebra should take MTH 097 or MTH 101.

PREREQUISITE: One year of H.S. algebra or MTH 097 and one year of H.S. geometry or MTH 098 with grades of B or better. Satisfactory score on the placement exam.
CREDIT: Five semester hours.
OFFERED: F, SP

MTH 103. College Algebra

This course is primarily for students who need to continue on in mathematics. Topics of study include review of fundamental algebraic operations, radicals, systems of equations, higher degree equations, inequalities, absolute value, logarithms, matrices, determinants and the binomial theorem. Credit is not given for this course and for MTH 102 or MTH 105.

PREREQUISITE: Three semesters of H.S. algebra and two semesters of H.S. geometry or the equivalent (MTH 098 and 101). Satisfactory score on the placement exam.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MTH 104. Trigonometry

This course is primarily for students who need to continue on in the study of mathematics. Topics of study include the trigonometric functions and their graphs, identities, trigonometric equations, and practical applications. Credit is not given both for this course and for MTH 105.

PREREQUISITE: Three semesters of H.S. algebra and two semesters of H.S. geometry or the equivalent (MTH 098 and 101).
CREDIT: Two semester hours.
OFFERED: F, SP, SU

MTH 105. Precalculus

This course covers the same topics as in College Algebra (MTH 102 or 103) and Trigonometry (MTH 104) with emphasis on functions approach and curve sketching. It is recommended for students planning to take the calculus sequence but have not met the prerequisites. Credit is not given for this course and for MTH 102 or MTH 103 or MTH 104.

PREREQUISITE: Three semesters of H.S. algebra and two semesters of H.S. geometry, or the equivalent (MTH 098 and 101). Satisfactory scores on the placement exam.
CREDIT: Five semester hours.
OFFERED: F, SP

MTH 106. Finite Mathematics

This course is intended for students in business, social science, and other areas in which a knowledge of the mathematics of probability, matrices, linear programming and their applications is used.

PREREQUISITE: MTH 103 or MTH 102, or the equivalent. Satisfactory score on the placement exam.
CREDIT: Four semester hours.
OFFERED: F, SP

MTH 107. Calculus for Business and Social Sciences

This course is for students who need a basic understanding of differential and integral calculus but do not need the more rigorous traditional calculus sequence. Applications in the fields of business and social sciences are stressed.

PREREQUISITE: MTH 102 or MTH 103, or the equivalent. Satisfactory score on the placement exam.
CREDIT: Four semester hours.
OFFERED: F, SP, SU

MTH 108. General Elementary Statistics

This course is intended to provide students with a basic understanding of the role of statistics in society along with a workable knowledge of statistical methods.

Topics include: graphical methods of organizing data, numerical descriptions of data, basic probability theory, probability distributions, statistical inference, correlation and regression, and analysis of variance.

PREREQUISITE: 1.5 years of H.S. algebra or MTH 101.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MTH 200. Calculus & Analytic Geometry I

This course is the first in a three semester sequence of analytic geometry and calculus. Topics include: real numbers, lines, circles, conics, functions, limits, derivative and anti-derivative with applications, transcendental functions and the definite integral with applications.

PREREQUISITE: MTH 105 or 103 and 104, or 102 and 104, or the equivalent and satisfactory score on placement test or consent of instructor. (Proficiency exam available.)
CREDIT: Five semester hours.
OFFERED: F, SP

MTH 201. Calculus & Analytic Geometry II

Topics include the definite integral and applications, techniques of integration, polar coordinates, indeterminate forms, improper integrals, conics, Taylor polynomials, sequences, series, and vectors in a plane.

PREREQUISITE: MTH 200 or the equivalent.
CREDIT: Five semester hours.
OFFERED: F, SP

MTH 202. Calculus and Analytic Geometry III

Topics include: three dimensional vectors, parametric equations, analytical geometry, partial differentiation, and multiple integrals.

PREREQUISITE: MTH 201.
CREDIT: Three semester hours.
OFFERED: F, SP

MTH 205. Introduction to Numerical Methods and Fortran Programming

The course includes the description of scientific computers and the fundamentals of the Fortran IV programming language applied to problems in science and engineering. Analysis and coding of problems involving roots of equations, large systems of simultaneous equations, numerical differentiation and integration, function approximation, and other selected topics. In-house computing facilities are used for processing students' programs.

PREREQUISITE: Credit or concurrent enrollment in MTH 201 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

MTH 206. Linear Algebra

Vector spaces, linear combinations, simultaneous equations, determinants, matrices, linear transformations, matrix algebra and other selected topics are covered.

PREREQUISITE: Completion of or concurrent enrollment in MTH 201.
CREDIT: Three semester hours.
OFFERED: Alternate SU

MTH 207. Differential Equations

Solution of ordinary differential equations of the first order and higher order with constant coefficients by exact methods, some equations with variable coefficients, an introduction to partial differential equations. Applications of all topics to problems arising in engineering and the physical sciences are studied.

PREREQUISITE: MTH 202 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

MATHEMATICS - TECHNICAL

MTH 120. Metric & English Measurement

This course is designed for those students who need to study the English and Metric units of measurement and how they are related. Topics to be studied include linear measure, weight measure, volume measure, temperature measure in English, Apothecaries, household, and Metric units. An individualized study approach is used .

Applications will focus on basic mathematical concepts necessary in the safe administration of medication for those in nursing and in the sciences for those needing a review.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP, SU

MTH 123. Mathematics for Industry

A study of positive and negative numbers, square roots, powers of numbers, ratio and proportion, weights and measures, conversion of units, elements of algebra, practical geometry and trigonometry. Emphasis is on the use of mathematics to solve problems encountered on the job.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

MTH 127. Technical Mathematics

This course includes topics in algebra, basic geometry and trigonometry; complex numbers, the use of tables and graphs. It is oriented, where practical, towards typical industrial problems.

PREREQUISITE: Algebra I (one year of H.S. algebra or MTH 097) with a grade of C or better.
CREDIT: Five semester hours.
OFFERED: F, SP, SU

MTH 128. Applied Mathematics I

This course includes topics in algebra and trigonometry; vectors, tables and graphs. It is oriented, where practicable, towards typical technical problems.

PREREQUISITE: MTH 101 or MTH 127 or equivalent, with grade of C or better.
CREDIT: Five semester hours.
OFFERED: F, SP

MTH 129. Applied Mathematics II

This course is a continuation of MTH 128 and includes topics from analytic geometry, advanced vector analysis; logarithms and exponential functions, differential and integral calculus. The graphical analysis of differential and integral calculus is stressed. The course is oriented, where practicable, towards typical technical applications.

PREREQUISITE: MTH 128, MTH 103 & MTH 104, or MTH 105 with a grade of C or better.
CREDIT: Five semester hours.
OFFERED: SP

MECHANICAL ENGINEERING TECHNOLOGY

EDT 128. Statics & Strength of Materials

This course begins with an introduction to the basic principles involved in the solution of problems involving forces acting on static structures. Topics include: vectors, moments, shear and bending forces. With that foundation, the course proceeds to apply those principles to the analysis and design of simple structures and machines. Emphasis is placed on the selection and sizing of materials to fulfill a given function. Topics in this part of the course include simple and combined stresses, bolted joints, torsion and horsepower, and beam and column design. Lecture, three hours per week; laboratory, four hours per week.

PREREQUISITE: MTH 128 or equivalent.
CREDIT: Five semester hours.
OFFERED: SP

EDT 220. Machine Design I

Expanding upon the basic principles in EDT 128, this course offers more complex applications and presents additional material germane to the design of structures and machines. Topics include indeterminate beams, eccentrically loaded beams and joints, curved beams, thick-walled cylinders, press and shrink fits, spring rates, contact stresses, fatigue, and failure theories. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: EDT 128 and MTH 129 or equivalent.
CREDIT: Four semester hours.
OFFERED: F

EDT 221. Machine Design II

The design principles of certain machine components are studied with calculations made in determining the size and shape of these components. Factors influencing the selections of material is included, along with the environment of application. Attention is given to manufacturer's data in selecting machine components. Lecture, two hours a week; laboratory, two hours a week.

PREREQUISITE: DFT 121 and EDT 220.
CREDIT: Three semester hours.
OFFERED: SP

EDT 224. Mechanisms

This course deals with the study of existing mechanisms and their motion characteristics, as well as the application of this study to the design of mechanisms to provide desired motion characteristics. Attention is given to such mechanisms as the four-bar, slider, crank, scotch yoke, quick-return, pantography, intermittent motion, cams, gears, belts, etc. In the motion study, absolute and relative velocities, accelerations and the use of instant centers are presented. Cam layout is presented in detail as well as the nomenclature and kinematics of gearing. Lecture, two hours per week; laboratory, six hours per week.

PREREQUISITE: DFT 121 and MTH 129 or equivalent.
CREDIT: Four semester hours.
OFFERED: F

EDT 225. Computer Aided Engineering

This course introduces the student to the microcomputer and its role in engineering. Beginning with a description of computer structure, terminology, and peripherals the subject matter then proceeds to the solution of common engineering problems. Vectors, trusses, beam analysis and design, and CAM design are a few of the problems solved through the use of existing software, emphasis is placed on the development of computer user skills rather than on programming proficiency. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: EDT 128
CREDIT: Three semester hours.
OFFERED: F, SU

EDT 226. Design Technician Internship

Individual students will be assigned to an engineering department in local industries. Work will be that normally performed by a design technician. Students meet one hour per week with instructor and spend 15 hours per week on the job.

PREREQUISITE: EDT 221 or concurrent enrollment.
CREDIT: Four semester hours.
OFFERED: SP

EDT 227. Computer Aided Design I

This is an introductory course in the operation of an automated drafting system (CADAM) widely used in various industries. Extensive hands-on terminal operation affords the student experience in creating basic geometric figures, orthographic views, and assembly drawings using software resident in the college's main-frame computer. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: DFT 121 or Industrial drafting experience.
CREDIT: Three semester hours.
OFFERED: F

EDT 228. Design Projects

This course will give the student the opportunity to apply the knowledge and training achieved in preceding courses in an "on-the-job" situation. Assignments will consist of analysis of problems, synthesis, preliminary design and layout, which will involve application of principles learned in related subject areas, and the final set of working drawings. Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: EDT 221 or concurrent enrollment.
CREDIT: Four semester hours.
OFFERED: SP

EDT 229. Computer Aided Design II

This is a follow-on to EDT 227 and introduces the student to advanced features of the CADAM automated drafting system including isometric views, section properties, special notes, and advanced analysis. Particular attention is given to the solution of problems arising at the student's place of employment pertaining to the incorporation of engineering changes in existing designs. Lecture, one hour per week; laboratory, four hours per week.

PREREQUISITE: EDT 227.
CREDIT: Three semester hours.
OFFERED: SP

MECHANICAL TECHNOLOGY

MT 120. Industrial Electricity

This course covers basic theory which governs the design, operation, application, and testing of electrical and electronic components, devices, and controls in modern industry. Elementary electrical, electrostatic, magnetic, and electronic circuitry problems relating to instruments, AC and DC systems and electro-mechanical machines are solved in both the traditional way and with the aid of computer techniques. Lecture, three hours per week; laboratory, two hours per week.

PREREQUISITE: Concurrent enrollment in MTH 128 or equivalent.
CREDIT: Four semester hours.
OFFERED: F

MT 121. Materials of Industry

The study of metals, their physical properties and composition. Included in the course are topics coverings: material selection, SAE and AISI coding, physical testing, destructive and non-destructive testing, heat treating, and machineability. Non-metals are also covered. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: Concurrent enrollment in MTH 128.
CREDIT: Three semester hours.
OFFERED: F

MT 122. Manufacturing Processes I

This course is designed to provide a base of knowledge covering two major areas of manufacturing: foundry and welding. Areas covered include: processes, process selection, cost determination, and casting and weldment design. This course is performance based. Lecture, two hours per week.

PREREQUISITE: Concurrent enrollment in MTH 128.
CREDIT: Two semester hours.
OFFERED: F

MT 123. Fundamentals of Numerical Control

In this course the student will learn the basics of numerical control. They will, by the end of the semester, have a knowledge of the purpose, type of machines, controls, and control programming; a study of computerized controls, computer aided programs and NC terms.

PREREQUISITE: MT 121, MT 122, MTH 128 and MTL 120.
CREDIT: Two semester hours.
OFFERED: SP

MT 220. Methods and Operations Analysis

A systematic study of methods, materials, tools and equipment for the purpose of finding the most economical way of doing work. This course is performance based and individualized instruction. Lecture, three hours per week; laboratory; three hours per week.

PREREQUISITE: MTH 128 or equivalent, or consent of instructor.
CREDIT: Four semester hours.
OFFERED: F

MT 221. Statistics & Quality Control

A course designed to cover sampling inspection techniques, use of inspection tools and instruments, construction and interpretation of control chart. This course is performance based. Lecture, two hours a week; laboratory, three hours a week.

PREREQUISITE: MTH 129 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: SP

MT 223. Process Planning

A study of fundamental principles, practice, and methods of process planning. Additional activities include operation selection, equipment selection, and tool selection. This course is performance based. Lecture, three hours per week; laboratory, three hours per week.

PREREQUISITE: MTH 129 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SP

MT 224. Introduction to Fluid Power

This course is designed to safely introduce all components, circuits, and principles commonly used in industry, and to fully acquaint the student with principles of fluid power. Practical working circuits with many variations have been developed to demonstrate machine behavior and malfunctions as they actually happen. Electro-mechanical exercises tie machine fluid power and electrical behavior together for industrial understanding. This course is competency based instruction. Lecture, three hours per week; laboratory, three hours per week.

PREREQUISITE: MTH 129.
CREDIT: Four semester hours.
OFFERED: F

MTL 120. Manufacturing Processes Lab I

This course is designed to provide laboratory experiences covering the various manufacturing materials and fundamental types of manufacturing methods as they are employed in the metal working industries. This course is required in the Manufacturing Technology curriculum. Competency based objectives will be used throughout the course. Laboratory, nine hours per week.

PREREQUISITE: Enrollment in MT 122.
CREDIT: Three semester hours.
OFFERED: F

MTL 121. Manufacturing Processes Lab II

This course is designed to provide laboratory experiences covering the various manufacturing materials and fundamental types of manufacturing methods as they are employed in the metal working industries. This course is required in the Mechanical Engineering Technology curriculum. Competency based objectives will be used throughout the course. Laboratory, three hours per week.

PREREQUISITE: Enrollment in MT 122.
CREDIT: One semester hour.
OFFERED: SP

MTL 122. Manufacturing Processes Lab III

This course is designed to provide laboratory experiences covering the various manufacturing materials and fundamental types of man manufacturing methods as they are employed in the metal working industries. This course is required in the Manufacturing Technology curriculum.
Competency based objectives will be used throughout the course. Laboratory, nine hours per week.

PREREQUISITE: Enrollment in MT 123.
CREDIT: Three semester hours.
OFFERED: SP

MTL 123. Manufacturing Processes Lab IV

This course is designed to provide laboratory experiences covering the various manufacturing materials and fundamental types of manufacturing methods as they are employed in the metal working industries. This course is required in the Robotics Application Technology curriculum. Competency based objectives will be used throughout the course. Laboratory, three hours per week.

PREREQUISITE: Enrollment in MT 123.
CREDIT: One semester hour.
OFFERED: SP

MECHANICS - THEORETICAL AND APPLIED MECHANICS

TAM 203. Theoretical and Applied Mechanics

This course employs a vector approach to statics and dynamics. The topics covered include resultants of force systems; algebraic and graphical methods of resolution; analysis of forces acting on members of trusses, frames, etc.; friction, centroids, kinematics or particles and rigid bodies; moments of inertia; kinetics of particles and rigid bodies; solution of kinetics problems by methods work, energy impulse and momentum; mechanical vibrations.

PREREQUISITE: Credit in Physics 109 and registration in MTH 202.
CREDIT: Five semester hours.
OFFERED: F

METALS

MET 120. Inspection and Gaging

Inspection and gaging covers in a concise manner many phases of inspection work and their applications to present day manufacturing operations. The course covers a variety of manual and automatic measuring devices and gages, their specific function and specialized techniques of application. In addition, it analyzes the methods and duties of the different types of inspectors. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: Understanding of basic mathematics.
CREDIT: Two semester hours.
OFFERED: F

MET 121. Numerical Controlled Machine Programming

An introduction to N/C programming. Material covered will include: manual programming, the history of N/C, the wide variety of tape equipment available, the basic ideas of coding systems, axis notation, tapes, and type punching equipment. Lecture, one hour per week; laboratory, five hours per week.

PREREQUISITE: MET 122, or to be taken concurrently, or consent of instructor.
CREDIT: Three semester hours.
OFFERED: Variable

MET 122. Metal and Metalworking

Introduction to metal-working tools to include a basic familiarity with the function of shop equipment including lathes, milling machines, etc., and their adaptability to metal-working. Course will also include familiarization with measuring layout work and the tools used to form and shape metal. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: None.
CREDIT: Four semester hours.
OFFERED: Variable

MET 123. Fabrication

This course will be an elaboration of previous subjects to include plate fabrication, pipe fabrication, and uses of structural components used in machinery and platforms. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: MET 122 or equivalent.
CREDIT: Two semester hours.
OFFERED: Variable

MET 129. Welding Metallurgy

This course examines the factors important in the weldability of metals. It is concerned with the behavior of metals and alloys under the thermal and mechanical environments found in welds. Lecture, three hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

MICROPROCESSOR/COMPUTER TECHNOLOGY

CET 120. Introduction to Microprocessor

A hands-on introduction to microprocessor programming using machine level instructions. The use of numbering systems, logical thinking and flow-charting is used in conjunction with an 8085 microprocessor single board training system to develop a solid understanding of microprocessor operation. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: ET 125 or concurrent enrollment or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F

CET 221. Motion and Process Control

CET 221 is a combination software and hardware course designed around the 8085 microprocessor to provide the student with an understanding of computer control applications and troubleshooting techniques. The first two thirds of the course will use Intel's 8085 Personal Development System and its I/O interface panels as a vehicle for demonstrating motion and process control applications using machine and assembly level programming. The final third of the course will be devoted to hardware troubleshooting of the PDS using the Fluke 9010A troubleshooting system. Lecture, two hours per week; laboratory, four hours per week.

PREREQUISITE: CET 120, CET 224, ET 222 and concurrent enrollment in CET 226.
CREDIT: Four semester hours.
OFFERED: SP

CET 224. Microprocessor Interfacing

A continuation of CET 120. An introduction to the operation of development systems using Intel's ISIS Personal Development System as a model. The first two thirds of the course covers system operation, screen editing and assembly language basics. The final third is devoted to hardware and troubleshooting using the 9010 troubleshooter and other troubleshooting aids. Lecture, three hours per week; laboratory, three hours per week.

PREREQUISITE: CET 120, ET 222 or concurrent enrollment.
CREDIT: Four semester hours.
OFFERED: F

CET 226. Microprocessor Systems

CET 226 is a combination software and hardware course designed around the 8051 microcontroller using the SDK51 development system to provide the student with an understanding of microcontroller programming and troubleshooting techniques using the Fluke 9010 asynchronous troubleshooting adaptor. Lecture, two hours per week; laboratory, six hours per week.

PREREQUISITE: CET 120, CET 224, ET 222 and concurrent enrollment in CET 221.
CREDIT: Five semester hours.
OFFERED: SP

MUSIC: APPLIED

MUP 101. Collegiate Chorale

A course in the understanding and enjoyment of music. Musical examples studied through selections from standard choral literature. Laboratory, three hours per week. May be repeated three times.

PREREQUISITE: High school choral experience.
CREDIT: One semester hour.
OFFERED: F, SP

MUP 102. Chamber Singers

A select group which specializes in studying and performing music written especially for choral ensembles. Lecture, one hour per week; laboratory, one hour per week. May be repeated for a maximum of four hours credit.

PREREQUISITE: Audition, consent of instructor, and concurrent enrollment in MUS 101-102.
CREDIT: One hour each semester.
OFFERED: F, SP

MUP 103. Wind Ensemble

Designed primarily to provide performance opportunities for student with high school band experience. The music selected is written primarily for the Wind Ensemble which is a small wind and percussion performing organization. The ensemble performs in concert three times annually, and provides, on a volunteer basis, pep band music for football and basketball games. Laboratory, three hours per week. May be repeated for a maximum of four hours credit.

PREPEQUISITE: High school band experience, and consent of instructor.
CREDIT: One hour each semester.
OFFERED: F, SP

MUP 104. Jazz Ensemble

A study of style and techniques in the jazz idiom. The course is open to all wind instrument players in addition to piano, guitar, and trap drum players. Rehearsals are twice weekly, one hour and fifteen minutes each. May be repeated for maximum of four hours credit. Lecture, one hour per week; laboratory, one hour per week.

PREREQUISITE: Performance ability on a wind instrument, piano, guitar, or trap drum.
CREDIT: One semester hour.
OFFERED: F, SP

MUP 105. Class Piano

Beginning group instruction in piano, designed primarily for music majors whose major instrument is not piano. Non-music majors may be admitted with the consent of the Division Chairperson, if space is available. An elementary course including the study of simple piano literature and the development of skills in techniques, sight reading, harmonization, transposition, and analysis. May be repeated to total four semester hours. Laboratory, two hours.

PREREQUISITE: Music major or consent of division chairperson.
CREDIT: One semester hour.
OFFERED: V

MUP 106. Swing Choir

A course in the understanding and enjoyment of music. Musical examples studied through selections from swing choral literature. Laboratory, three hours per week. May be repeated three times.

PREREQUISITE: High school choral experience
CREDIT: One semester hour
OFFERED: F, SP

MUP 201. Applied Music Instrumental

Individual instruction for serious music students whose principal performing medium is piano, guitar, organ, orchestral or band instrument. Emphasis on technique, literature, and performance; proficiency requirements at each level. One hour per lesson per week. May be repeated to a maximum of four (4) semester hours. Concurrent enrollment in one of the College instrumental groups recommended.

PREREQUISITE: Music major or audition.
CREDIT: One semester hour.
OFFERED: F, SP, SU

MUP 202. Applied Music Vocal

Individual instruction for music students whose principal performing medium is voice. Emphasis on technique, literature and performance, with proficiency requirements at each level. One hour lesson per week. May be repeated to a maximum of four (4) semester hours. Concurrent enrollment in one of the College vocal groups recommended.

PREREQUISITE: Music major or audition.
CREDIT: One semester hour.
OFFERED: F. SP. SU

MUP 203. Collegium Musicum

A group organized for the purpose of learning and continuing to learn to play recorders, viola-da-gamba, harpsichord, crumborns and other instruments in the college's collection. Ensembles will be formed according to interest and ability and performances will be given at the Madrigal Dinner in the fall and in the spring. Medieval, Renaissance and Baroque music will be studied.

PREREQUISITE: Consent of instructor.
CREDIT: One semester hour.
OFFERED: F, SP

MUSIC: HISTORY & THEORY

MUS 100. Introduction to and History of Music

This course will teach the understanding of music as related to the other arts and sciences. It is divided into two activities: the study of music fundamentals and listening to examples as correlated with examples in music history. It covers periods of history through contemporary times. It will reinforce perception of a particular quality in familiar music and widen perception of a particular quality in unfamiliar music.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

MUS 106. Music Theory I

Intensive training in musicianship through the study of sight singing, rhythmic and melodic dictation, chord recognition and keyboard harmony. Harmony and analysis; a study of the basic principles involved in eighteenth and nineteenth century musical composition. Lecture, three hours per week; laboratory, two hours per week.

Note: It is recommended that music majors be concurrently enrolled in both applied music and a performance group.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F

MUS 107. Music Theory II

A continuation of Music 106. Intensive training in musicianship through the study of sight singing, rhythmic and melodic dictation, chord recognition and keyboard harmony. Harmony and analysis; a study of the basic principles involved in eighteenth and nineteenth century musical composition. Lecture, three hours per week; laboratory, two hours per week.

Note: It is recommended that music majors be concurrently enrolled in both applied music and a performance group.

MUS 110. Elements of Music for the Non-Music Major

This course will teach how to read music, play a piano, sing, read a leadsheet, chord, and accompany. Students will study notation, scales, rhythm, intervals, and musical terminology. Excellent course for elementary education majors, also recommended for music minors and music majors showing a deficiency in musical background.

PREREQUISITE: None
CREDIT: Two semester hours.
OFFERED: SP, SU

MUS 206. Music Theory III

A continuation of Music 107. Intensive training in musicianship through the study of sight singing, rhythmic and melodic dictation, chord recognition and keyboard harmony. Harmony and analysis; a study of the basic principles involved in eighteenth and nineteenth century musical composition. Lecture, three hours per week; laboratory, two hours per week.

Note: It is recommended that music majors be concurrently enrolled in both applied music and a performance group.

PREREQUISITE: MUS 107
CREDIT: Four semester hours.
OFFERED: F

MUS.207. Music Theory IV

A continuation of Music 206. Intensive training in musicianship through the study of sight singing, rhythmic and melodic dictation, chord recognition and keyboard harmony. Harmony and analysis; a study of the basic principles involved in eighteenth and nineteenth century musical composition. Lecture, three hours per week; laboratory, two hours per week.

Note: It is recommended that music majors be concurrently enrolled in both applied music and a performance group.

PREREQUISITE: MUS 206.
CREDIT: Four semester hours.
OFFERED: SP

MUS 209. Introduction to Music Education/Field Experience

An examination of current philosophies and practices in music education to provide students with perspectives and directions in the classroom. Field experience through direct observation in public schools helps students examine curriculum and methodology. A seminar plus thirty hours in music classrooms for all music education majors is provided thorough directed supervised observation in a variety of educational settings.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: Arranged

NURSING

NUR 120. The Role of the Licensed Practical Nurse

This course provides an introduction to the role and responsibilities of the LPN. Emphasis is placed on the legal, ethical implications of nursing practice. Specific concepts that will govern the LPN in practice are discussed. Current trends, an introduction to institutional health care, and health team relationships are explored.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F

NUR 121. Fundamentals of Nursing I

An introductory course in nursing. The content focuses on scientific principles and basic clinical skills necessary for implementing basic therapeutic nursing measures. Campus laboratory experience provides opportunity to develop dexterity and a degree of proficiency in applied nursing procedures. Through supervised practice in the clinical area, the student is given the opportunity to provide patient care using newly acquired knowledge and techniques of basic nursing procedures. Lecture, one and one-half hours per week; college laboratory, one and one-half hour per week; clinical laboratory, three hours per week including clinical conference

PREREQUISITE: Admission to the nursing curricula and concurrent enrollment in or prior completion of A-H 120, 122 and ZOO 107
CREDIT: Three semester hours.
OFFERED: F

NUR 122. Fundamentals of Nursing II

A course in nursing fundamentals building upon and expanding knowledge and skills acquired in Fundamentals of Nursing I. Scientific principles and clinical skills increase in complexity. Campus laboratory experience focuses on continued development of dexterity and proficiency of techniques. Supervised practice in the clinical area provides students the opportunity to implement their knowledge and skill in giving direct patient care. Lecture, one and one-half hours per week; college laboratory, one and one-half hours per week; clinical laboratory, three hours per week including clinical conference.

PREREQUISITE: Successful completion of NUR 121. Concurrent enrollment in or prior completion of A-H 120, 122, ZOO 107.
CREDIT: Three semester hours.
OFFERED: F

NUR 123. Theories & Concepts Basic to Nursing

An introductory course in nursing focusing on concepts of nursing relating to identifying human needs in health and illness. Emphasis is placed on communication skills, the application of the nursing process as a framework for the therapeutic nursing measures, the recognition of moral problems nurses encounter together with reasonable approaches to bring these problems to closure.

PREREQUISITE: Admission to one of the nursing curricula and concurrent enrollment in or prior completion of required non-nursing courses.
CREDIT: Two semester hours.
OFFERED: F

NUR 124. Nursing Care of Children

This module focuses on the role of the nurse in holistic child health care as influenced by physical, psychosocial, and environmental factors. The nursing process, principle of growth and development, and Maslow's hierarchy of needs serve as a basis to promote optimum health. Clinical experience is centered about preventive, therapeutic, and rehabilitative measures of the common health problems seen in children (infant through adolescent). Accountability and standards of maternal-child health nursing practice as set forth by the American Nurses' Association are expected of all students. Lecture, one and on-half hours per week; clinical laboratory, four and one-half hours per week including clinical conference and discussion of related topics.

PREREQUISITE: A-H 120, 122; ZOO 107, 108; NUR 121, 122, 123
CREDIT: Three semester hours.
OFFERED: SP

NUR 125. Nursing Care of the Childbearing Family

A study of the nursing needs of individuals as they relate to reproduction and childbearing. Experience is given in preventive, supportive and therapeutic care with special emphasis in clinical areas of obstetrics in the hospital and community facility. Accountability and standards of maternal-child health nursing practice as set forth by the American Nurses' Association are expected of all students. Lecture, one and one-half hours per week; clinical laboratory, four and one-half hours per week including clinical conference and discussion of related topics.

PREREQUISITE: A-H 120, 122; ZOO 107, 108; NUR 121, 122, 123
CREDIT: Three semester hours.
OFFERED: SP

NUR 129. Practical Nursing for Common Problems

Theory and practice of practical nursing functions in relation to the person who is suffering from a variety of common health problems. Experience is provided in nursing homes, hospitals and other health agencies. Lecture, two hours per week; seminar, two hours per week; laboratory, ten hours per week.

PREREQUISITE: A-H 120, 122; NUR 121, 128, 120 or 123; ZOO 120 or 107; HOM 100; with a minimum grade of "C" in each of the above. Concurrent enrollment or completion of NUR 124 and 125.
CREDIT: Nine semester hours.
OFFERED: SP

NUR 220. Holistic Physical and Mental Nursing I

This module is constructed around the basic human needs of an individual throughout the life cycle and the anxiety that arises from threats to his self-esteem. Incorporated into this module is an emphasis on prevention, detection, and treatment of mental health in an in-patient, out-patient, and/or community mental health setting. An in-depth study and application of principles of interpersonal relationships is designed to enable the student to develop therapeutic nurse/patient relationships with adult psychiatric patients who demonstrate varying degrees of emotional health/illness. Accountability and standards of psychiatric nursing practice as set forth by the American Nurses' Association are expected of all students. Lecture, three hours per week; clinical laboratory, six hours per week including clinical conference and/or related topics.

PREREQUISITE: NUR 121, 122, 123; A-H 120, 122; ZOO 108; PSY 100. A minimum grade of C is required for each prerequisite course.
CREDIT: Five semester hours.
OFFERED: F

NUR 221. Holistic Physical and Mental Nursing II

The focus of this module is the nursing care of clients/patients with problems related to the endocrine, neuromusculoskeletal, and integumenta systems. Students are provided the opportunity to utilize the nursing process, nursing skills and theoretical knowledge in related clinical situations. Accountability and standards of nursing practice as set forth by the American Nurses' Association is expected. Lecture, three hours per week. Clinical laboratory, six hours per week including clinical conference and/or related topics.

PREREQUISITE: NUR 121, 122, 123; A-H 120, 122; ZOO 107, 108; PSY 100 with a minimum grade of C.
CREDIT: Five semester hours.
OFFERED: F

NUR 222. Holistic Physical and Mental Nursing III

The entire module will center around the nursing process which is a framework for action that guides a nurse's practice when a problem with the cardio-pulmonary system is identified and intervention is considered and implemented. Legal issues that are relevant to medical-surgical nursing practice will be incorporated as well as the standards for practice set forth by ANA. Lecture, three hours per week; clinical laboratory, six hours per week including clinical conferences and/or related topics.

PREREQUISITE: NUR 121, 122, 123; A-H 120, 122; ZOO 107, 108; PSY 100. A minimum grade of C is required for each prerequisite course.
CREDIT: Five semester hours.
OFFERED: SP

NUR 223. Holistic Physical and Mental Nursing IV

The focus of this module is the nursing care related to the digestive, genitourinary, and reproductive systems and to the cancer patient. The student is given the opportunity to utilize the nursing process, nursing skills, and theoretical knowledge of relaxed clinical situations. Accountability and standards of nursing practice as set by the American Nurses' Association are expected of all students. Lecture, three hours per week; clinical laboratory, six hours per week including clinical conferences and/or related topics.

PREREQUISITE: NUR 121, 122, 123; A-H 120, 122; 200 107, 108; PSY 100. A minimum grade of C is required for each prerequisite course.
CREDIT: Five semester hours.
OFFERED: SP

NUR 224. Issues in Professional Nursing

This course is concerned with the current issues and trends in the practice of nursing and the delivery of health care. Emphasis is on the transition of student nurse to graduate nurse and analytical skills of moral reasoning are presented in order that the nurse will be able to adopt a moral point of view and make and defend considered moral judgments. The Illinois Nurse Practice Act and ethical issues in nursing are discussed.

PREREQUISITE: Completion of first year nursing curriculum or licensure as a Registered Nurse.
CREDIT: Two semester hours.
OFFERED: SP

NUR 225. Nursing Process

This course is designed to enhance the knowledge and skill of the working nurse in a realistic practical application of the nursing process. The nurse is expected to use assessment tools and care plans presently used in the clinical area. Time will also be given to evaluate the effectiveness of these tools based on discernibly needed information in the clinical setting.

PREREQUISITE: Sophomore status or completion of R.N.
CREDIT: Two semester hours.
OFFERED: V

NUR 226. Health Assessment for Nurses

This course is designed for second semester, second year nursing students and R.N.'s who wish to develop or improve their assessment skills. Assessment will be made in a holistic manner including the physical, mental, social and spiritual spheres with the most emphasis being placed on the physical aspect of health. The nursing process will be utilized up to and including the formulation of nursing diagnoses.

PREREQUISITE: NUR 221 or R.N. Status.
CREDIT: Two semester hours.
OFFERED: V

NUR 227. Nursing Care in Late Maturity

The focus of the course is the holistic nursing care--protective, nutrative, and generative--of adults beyond the age of seventy. The disease process, according to body systems, and intervention of other members of the health field as related to the nursing process are considered. The normal aging process, control forces affecting geriatric nurses and their clients, demographics, developmental tasks, and place of the older adult in the community are also explored.

PREREQUISITES: 200 107 and 108, PSY 100, SOC 100, or registered nurse, or consent of instructor.
CREDIT: Three semester hours.
OFFERED: V

NUR 229. Intensive Cardiac Care Nursing

A continuing education course for the nurse who wishes to improve her knowledge and skills for the care of the acutely and/or critically ill person with cardiac disease. Lecture, three hours per week.

PREREQUISITE: Registered Nurse or Licensed Practical Nurse. The Licensed Practical Nurse must have had experience working as a full-time employee in an intensive care unit or working in such a unit while attending the course.
CREDIT: Three semester hours.
OFFERED: F, SP

PHILOSOPHY

PHL 101. Introduction to Philosophy

An introduction to the objects, methods, and tasks of philosophy. This course considers three basic questions: What is philosophy? How is philosophy practiced? and, Why is philosophy practiced?

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

PHL 102. Ethics

An examination of moral principles and moral issues. The course focuses upon the nature and the ground of moral obligation. It introduces major ethical systems and tests those against selected contemporary moral problems.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

PHL 103. Philosophy of Religion

A study of the nature and object of religious belief. Attention will be given to the following: the relation between faith and reason, the relation between religion and culture, the problem of evil, and the analysis of religious language.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

* PHL 104. Death and Dying

Personal attitudes toward death and the role of death in society are the focus of study and discussion. The adjustment of the individual to the acceptance of death and the development of better understanding of death are the major features of this course.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

PHL 105. Logic

A study of the methods and principles used to recognize, analyze, and evaluate arguments. The course focuses upon practical reasoning in natural language, although some formal methods of evaluating arguments will be introduced.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

* Note: This course cannot be applied to the general education humanities requirements for the A.A. and A.S. degrees.

PHYSICAL EDUCATION

CO-EDUCATIONAL

PEC 100. Tennis and Badminton

A co-educational course in the techniques of tennis and badminton.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP

PEC 101. Archery and Golf

A course in the skills, strategies, and rules of archery and golf.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP

PEC 102. Fencing and Bowling

A course in the skills, strategies, and rules of fencing and bowling. The bowling will be done at a local bowling alley.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: V

PEC 103. Recreational Games

A course in which students will participate in a variety of leisure activities. Games and activities involving individuals, partners, and small groups will be included. Such activities as badminton, horseshoes, bowling, and shuffleboard will be included.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: V

PEC 106. Racquetball

A course designed to teach the skills and strategy of playing racquetball. The class will meet at a local racquetball club, and there will be an additional fee charged to play.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP

PEC 204. Camping

A course designed to acquaint the student with the skills and equipment used in camping. Eight hours will be spent in the classroom and one weekend will be spent camping at a local camping area. Students will be expected to supply their own food and camping equipment and pay their own camping fees.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: SP

PEC 205. Volleyball and Softball

A co-educational course in the techniques of volleyball and softball.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP

PHYSICAL EDUCATION - MEN

PEM 100. Weight Training and
Conditioning

A course in techniques and methods of weight training and physical conditioning. Emphasis will be on the development of strength, muscular endurance, flexibility, and cardiovascular endurance as elements of physical fitness.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F, SP

PEM 105. Touch Football, Soccer,
and Basketball

A course in the team sports of touch or flag football, soccer, and basketball. Skills, rules, and game strategy will be emphasized for each activity.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F

PEM 200. Advanced Weight Training
and Conditioning

A course in advanced techniques and methods of weight training and physical conditioning. Emphasis will be on power lifting and olympic weight lifting techniques.

PREREQUISITE: PEM 100.
CREDIT: One semester hour.
OFFERED: F, SP

PHYSICAL EDUCATION

PROFESSIONAL

PEP 101. Badminton

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play badminton.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F

PEP 102. Golf

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play golf.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: SP

PEP 103. Tennis

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play tennis.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F

PEP 200. Basketball

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play basketball.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F

PEP 203. Volleyball

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play volleyball.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: SP

PEP 204. Softball

A course for physical education majors dealing with the theory and practice of the fundamental skills used to play softball.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: SP

PHYSICAL SCIENCE

PSC 100. Introduction to
Physical Science

The course surveys the fundamental concepts of Physics, Chemistry, and Earth Science. A non-mathematical approach is used where possible. The course is intended for non-science majors and does not serve as a prerequisite for any advanced science course. Lecture, three hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP, SU

PHYSICS

The course descriptions in physics include guidelines for the student as to the laboratory time required. The laboratory is an open lab (unscheduled, except for PHY 120 and 121) and is available to the students with an instructor present as posted. The student is expected to plan for time in the laboratory so that the necessary experimental work can be completed.

PHY 109. General Physics
(Mechanics)- Engineering

This course is for students in chemistry, engineering, and physics. This course includes forces, motion, work and energy, circular and harmonic motion. Lecture, two hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: Credit or
registration in MTH 200.
CREDIT: Four semester hours.
OFFERED: SP, SU

PHY 120. Applied Physics I

The topics covered include measurement; mechanics, including concepts of vectors, force, motion, work, energy, power, friction, simple machines and torque. Lecture, two hour per week; laboratory, two hours per week.

PREREQUISITE: Credit in MTH 128
or the equivalent.
CREDIT: Three semester hours.
OFFERED: SP

PHY 121. Applied Physics II

Topics covered include gases, heat, harmonic motion and waves, sound, light and optics; atomic and nuclear physics. Lecture, two hours per week; laboratory, two hours per week.

PREREQUISITE: PHY 120.
CREDIT: Three semester hours.
OFFERED: F

PHY 200. General Physics (Heat, Wave Motion, Sound and Electricity) - Engineering

This course is for students in chemistry, engineering and physics. This course includes the concepts of temperature, heat, molecular properties of matter, concepts of waves and wave motion, vibrating bodies, electric fields, DC current and circuits. Lecture, two hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: PHY 109 and credit or registration in MTH 201.
CREDIT: Four semester hours.
OFFERED: F

PHY 201. General Physics (Electricity, Magnetism, Light, and Modern Physics) - Engineering

This course is for students in chemistry, engineering and physics. This course includes the concepts of magnetic field, A.C. current and circuits, electromagnetic waves, light, optics, atomic and nuclear physics. Lecture, two hours per week, seminar, one hour per week, laboratory, three hours per week.

PREREQUISITE: PHY 200.
CREDIT: Four semester hours.
OFFERED: SP

PHY 203. General Physics (Mechanics, Heat, Waves, Motion and Sound) - LAS

This course is for students in the Arts and Sciences. (Not for chemistry, engineering, or physics majors.) This course includes the basic concepts of force and motion, energy and momentum, properties of matter, heat and thermodynamics, wave motion, and sound. Lecture, three hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: MTH 105 or equivalent.
CREDIT: Five semester hours.
OFFERED: F

PHY 204. General Physics (Electricity, Magnetism, Light, Atomic & Nuclear Physics) - LAS

This course is for students in the Arts and Sciences. (Not for chemistry, engineering, or physics majors.) This course includes the concepts of light and optics, electricity and magnetism, and atomic and nuclear physics. Lecture, three times per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: PHY 203.
CREDIT: Five semester hours.
OFFERED: SP

POLITICAL SCIENCE

PSI 100. American National Government

This course is a basic survey of American national government. A variety of topics concerning our political system will be studied, with emphasis placed not only on the institutions themselves, but also the results of the interactions of people and groups inside and outside the governing process.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

PSI 102. State & Local Government

A study of the role of state and local governments in the federal system, emphasizing the organizational structure as well as the political operations of these governments. The Illinois state constitution is also studied.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

PSI 120. Personal & Family Law

The study of personal and family rights examined in the context of legislative, administracive, and court impacts. Marriage, divorce, adoption, mental health, education, support, paternity, juvenile, criminal, property and estates and other contemporary issues are surveyed. A basic understanding of our court system is provided.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

PSI 200. International Relations

This course explores the relationships which nations have with each other in the international community. It examines the role that power, warfare, diplomacy, and other actions have in enabling countries to achieve their foreign policy goals. Emphasis is placed on current international events.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

PSYCHOLOGY

PSY 100. General Psychology

An introductory course dealing with analysis and description of human behavior with special reference to learning, memory, perception, motivation, emotions, personality, and adjustment. Emphasis is placed on psychological principles as they relate to daily life.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

PSY 110. Industrial Psychology

An introductory course dealing with the application of psychological facts and principles to the problems of human relations in business and industry. Emphasis will be placed upon personnel-related considerations and problems.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

PSY 111. Dieting: The Psychology of Losing It

A lecture and discussion class dealing with psychological principles involved in over-eating and dieting. Student participation in a personally designed program is optional and subject to the approval of a physician.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: On demand.

PSY 200. Personality & Adjustment

This course is designed to provide a meaningful approach to problems of human adjustment. Considerable emphasis will focus on personality theories, adjustive and coping behaviors, maladjustive behaviors, stress, and current topical issues.

PREREQUISITE: PSY 100.
CREDIT: Three semester hours.
OFFERED: F, SP

PSY 201. Child Growth and Development

This course charts the physical, cognitive, and psychosocial growth and development from conception through adolescence. Theory, research, and practical application are emphasized. Opportunity to study children in a classroom is provided in this course.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: SP

PSY 205. Human Sexuality

An introductory course dealing with basic biological, psychological, and cultural aspects of human sexuality as they relate to daily life. Emphasis will be placed on psychological dimensions of sexuality to promote an increased personal understanding of sexual behavior.

PREREQUISITE: PSY 100 or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F, SP

PSY 220. Human Relations in the World of Work

Designed specifically for students in one or two year vocational/technical programs, the course focuses on applied psychology related to the world of work. Attention is given to motivation, job-related problems, interpersonal relations on the job, and adjustment to typical stress situations. Attention is also given to the job selection and interview process. Instruction is directed towards the practical application of behavioral principles in a work setting.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP

PUBLIC WATER SUPPLY

PWS 120. Water Supply Operation I

This is an introductory course of water supply operations. The topics will include operation and maintenance of water distribution systems, chlorination, fluoridation and water supply math.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: V

READING

* RED 090. Basic Reading Skills

Development of reading and study skills basic for success in higher education is the focus of this course. In addition to vocabulary development and reading comprehension, notetaking and other study skills are emphasized. The grade is not computed in the graduation g.p.a. This course fulfills the reading requirement.

REREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

* RED 091. Vocabulary

Development of vocabulary building skills is the focus of the course. The specific needs of the student are determined through testing, referrals from instructors, and student's academic instructional program. The grade is not computed in the graduation g.p.a. This course may be used as a partial fulfillment of the reading requirement.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F, SP, SU

* RED 092. Test Taking and Study Techniques

This course will provide the student with skill development in time management, concentration, memory, and test taking through practical "how to" instruction along with practice. The skills are applied to courses being taken by the student. The grade is not computed in the graduation g.p.a. This course may be used as a partial fulfillment of the reading requirement.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F, SP, SU

* RED 093. Using Study Systems

Application of the SQ3R textbook study system and Cornell notetaking is the focus of the course. Lecture notetaking and other notetaking strategies are included. The grade is not computed in the graduation g.p.a. This course may be used as a partial fulfillment of the reading requirement.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* RED 094. Reading Rate and Comprehension

Increasing the accuracy and understanding of text reading is the focus of this course. Practice in identifying main ideas, supporting details, and organizational structure will be stressed. An opportunity will be given to increase reading rate. The grade is not computed in the graduation g.p.a. This course may be used as a partial fulfillment of the reading requirement.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* RED 095. Reading Technical Documents

Application of reading strategies used in technical subjects such as beginning sciences, automotive mechanics, metallurgy, data processing and electronics is the focus of the course. The course content includes vocabulary development, reading comprehension, notetaking techniques, graphical comprehension, and following procedural directions. Direct application will be made to the student's technical textbooks. The grade is not computed in the graduation g.p.a. This course may be used as a partial fulfillment of the reading requirement.

PREREQUISITE: None
CREDIT: One semester hour
OFFERED: F, SP, SU

* RED 096. Spelling

This course is designed to develop spelling proficiency. The specific needs of the student are determined through testing, referrals from instructors, and student's instructional program. The grade in this course is not computed in the graduation g.p.a.

PREREQUISITE: None
CREDIT: One semester hour.
OFFERED: F, SP, SU

* RED 099. Critical Thought Skills

Thinking is an ability that can be improved through proper guidance and practice. Effective thinking strategies will be developed and-applied to situations that occur in the student's life. Students will explore their basic attitudes toward life and education. Qualities such as initiative, maturity, and responsibility will be encouraged. The grade in this course will not be computed in the graduation g.p.a. This course will fulfill the reading requirement.

PREREQUISITE: Total score of 53 on the Nelson Denny Reading Test or consent of the instructor.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

* NOTE: Credit for courses so marked will not apply to any degree or certificate.

RED 108. Advanced Reading

This course is designed for students who want to improve their speed, flexibility, vocabulary and comprehension in reading. Strategies used in study reading, critical reading, rapid reading, skimming and scanning will be practiced. Vocabulary development techniques will be applied to college level words. The grade is computed in the graduation g.p.a.

PREREQUISITE: Total score of 65 on the Nelson Denny Form E Reading Test or consent of instructor.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

REAL ESTATE

The Division of Business offers real estate courses leading to both the salesman and brokerage licenses in real estate. Courses in these sequences meet the requirements of the Department of Registration and Education of the State of Illinois.

Sales License Course

To sit for the sales examination an individual must have completed the thirty (30) class hour Real Estate Transactions course. This course is listed in the Real Estate section of the catalogue as Real Estate 120. Anyone desiring to take the brokerage courses must have successfully completed RE 120.

Brokerage License Courses

To qualify for taking the brokerage examination an individual must have previously completed the thirty (30) hour Real Estate Transactions course plus an additional sixty (60) hours in the brokerage sequence.

Each course in the brokerage sequence is fifteen (15) class hours.

Two courses are required in this sequence: Contracts and Conveyancing and Advanced Real Estate Principles. Two other courses from among the following are then chosen as electives: Real Estate Appraisal, Property Management, Financing, Sales and Brokerage, Farm Management, Real Property Insurance, and Refresher Course for License Reinstatement. See the following Real Estate courses for exact course descriptions and course numbers.

RE 120. Real Estate Transactions

This course is designed to provide an Introduction to Real Estate Transactions. Topics will cover: interests in real estate, estates in land, homestead, easements, how ownership is held, partition, and partnership. This course is graded on a pass-fail basis. Meets Department of Education and Registration requirements for taking the Real Estate Sales examination.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED F, SP

RE 121. Contracts & Conveyancing

Topics covered will be deeds, fixtures, acknowledgements, brokers and managers, contracts, foreclosure and redemptures, landlord and the tenant concepts. This course is graded on a pass-fail basis. A required course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED F, SP

RE 122. Advanced Real Estate Principles

This course will cover listings, title search, completion of contract form, broker relationship, Illinois Real Estate License Act of 1983, and completion of applications for licenses. This course is graded on a pass-fail basis. A required course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED F, SP

RE 123. Real Estate Appraisal

Topics covered will include: real estate property value, appraisal process, economic trends, basic property value principles, depreciation and obsolescence, future life estimates, and market approach to value. This course is graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

RE 124. Property Management

This course will cover property modernization, rental and expense schedule, financial structure and budget, leases, property insurance, purchasing, commercial property, industrial property, project management, management control and advertising. This course will be graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: On semester hour.
OFFERED On demand.

RE 125. Financing

This course will cover types of financing, sources of financing, mortgages, trust deed, mortgage notes, prior liens, foreclosure, insurance, and mortgage risk. This course will be graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

RE 126. Sales and Brokerage

This course will cover: qualifications of the broker appraisal principles and methods, training and supervision of salesperson, types and sources of listings, and governmental regulations. This course will be graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

RE 127. Farm Management

This course will cover: inventorying the assets, methods of arm operation, budgeting cash flow planning, crop production, livestock production, and marketing. This course will be graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

RE 128. Real Property Insurance

This course will cover: the nature and functions of insurance, property insurance, dwelling coverage, homeowners' policy, burglary and theft insurance, private mortgage insurance, Commercial and industrial insurance. This course will be graded on a pass-fail basis. An elective course in the real estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

RE 129. Refresher Course for License Reinstatement

This course will cover: review of Illinois Real Estate License Act of 1983, court decisions, broker-lawyer accord changes, contract law changes, transfer of title, and changes in taxes, liens, and enforcement. This course will be graded on a pass-fail basis. An elective course in the Real Estate brokerage sequence.

PREREQUISITE: RE 120.
CREDIT: One semester hour.
OFFERED On demand.

ROBOTICS APPLICATION TECHNOLOGY

RBA 120. Introduction to Robotics

This course will introduce the standard practices and techniques that should be employed in the isolation, evaluation, development, fabrication, installation, and monitoring of industrial robot applications. Industrial or educational experience in manufacturing is strongly recommended.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED F

RBA 222. Robot Applications Field Project

This course was developed specifically to provide answers to a battery of questions addressed directly to robot applications and installations. The objective of this course is to interact with the resource people and answer these questions. The major areas covered will be: defining the task, developing the plan, personnel and labor relations, installation, safety considerations, back-up and contingency plans, economic considerations, video tape, photography, report writing and documentations will be used. This course is competency based instruction. Lecture, one hour per week; laboratory, six hours per week.

PREREQUISITE: Second year standing or consent of instructor.
CREDIT: Four semester hours.
OFFERED SP

SOCIAL SCIENCE

SSI 220. American Institutions

A study of the effect of American social, economic, and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economic heritage.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: On demand.

SOCIOLOGY

SOC 100. Introduction to Sociology

An introductory course dealing with basic principles, concepts, and terminology. Efforts will be made to develop sociological insights into the study of man, society, and culture.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F, SP, SU

SOC 200. Social and Cultural Change

This course is an extension of the principles and concepts in sociology with emphasis upon social and cultural change. The nature of social and cultural change is explored along with the factors affecting change. Specific changes/problems in society will also be considered.

PREREQUISITE: SOC 100.
CREDIT: Three semester hours.
OFFERED: SP

SPEECH/THEATRE

SPH 101. Fundamentals of Speech

A course in the fundamentals of speech presentation in audience situations with emphasis upon the development of effective organization, voice, and movements. Lecture, three hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

SPH 102. Discussion and Debate

Continuation of the study of speech in relation to contemporary life in the areas of public address, discussion and debate. Lecture, three hours per week.

PREREQUISITE: SPH 101, debate squad member, or permission of instructor.
CREDIT: Three semester hours.
OFFERED: F

SPH 105. Theatre Playhouse Production

The study and production of a major play, revue, and/or readers' theatre. All areas of production related to acting, technical work, business, and public relations will be dealt with as areas of specific assignments. The class meeting times will be arranged with the instructor for rehearsals and for independent work assignments.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP, SU

SPH 106. Acting

A first year course of basic skills in the art of acting in interpretation of roles. Lecture, three hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

SPH 201. Oral Interpretation

Intensive study of literary selections involving critical reading and interpretation of oral readings to audiences. Lecture, three hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

SPH 202. Introduction to Theatre

A study of the origins and the development of theatre arts from primitive man to contemporary theatre movements. Representative examples of theatre from each period will be studied through readings and/or performances. The application of critical elements to a production will be used as a basis for the course. The course deals primarily with western world theatre with a brief presentation of theatre from the Middle and Far East.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: SP

SPH 205. Theatre Playhouse Production

A continuation of SPH 105. Lecture, one hour per week; laboratory, five hours per week.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

SPH 208. Introduction to Broadcast

A survey of the history of American radio and television broadcasting, comparative broadcasting systems, organization and operation of stations and networks, social and legal responsibilities of radio and television, codes and practices of broadcasting, and an introduction to radio and television audiences measurement and survey results and methods. The course also includes practical experience in radio and television production techniques and copywriting.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: V

SPH 209. Art of the Film

Background viewing, critiquing, lectures, discussions on history and appreciation of cinema as an art form and its influence on and reflection of society.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F, SP

WASTE WATER TREATMENT

WWT 120. Waste Water Treatment I

This course is designed as the first of a two-course sequence to prepare wastewater treatment plant operators for state certification. This course will train operators primarily for the Class 3 & 4 examinations although course content will apply to all certification levels. Topics covered will include: introduction to wastewater, collection systems, lift stations, flow measurement, pre-treatment, primary treatment, stabilization ponds, intermittent sand filters, chemical feeders, sampling and legal requirements, chlorination, affect of discharges on receiving streams and basic applied Math.

PREREQUISITE: None
CREDIT: Three semester hours.
OFFERED: F

WWT 121. Waste Water Treatment II

This is the second of a two-course sequence to prepare wastewater treatment plant operators for state certification. This course will train operators primarily for the Class 1 & 2 examinations although course content will apply to all certification levels. Topics covered will include: activated sludge, digesters, tertiary treatment and sludge handling.

PREREQUISITE: WWT 120.
CREDIT: Three semester hours.
OFFERED: SP

WELDING

WLD 120. Stick, Plate Flat

Theory and practice in the preparation and welding of flat position steel plate joints using the E-6010 and E-7018 electrodes. Safety, electrode selection, polarity, current selection, inspection, and testing are included. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 121. Stick, Plate Horizontal

Theory and practice in the preparation and welding of horizontal position steel plate joints using the E-6010 and E-7018 electrodes. Safety, joint preparation and A.W.S. welding procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 120 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 122. Stick, Plate Vertical-Up

Theory and practice in the preparation and welding of vertical up position steel plate joints using the E-6010 and E-7018 electrodes. Safety, joint preparation, weave techniques and A.W.S. welding procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 121 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 123. Stick, Plate Vertical-Down

The theory and practice in the preparation and welding of vertical down position steel plate joints using E-6010 and E-7010 electrodes. Safety, joint preparation, weave techniques and A.W.S. welding procedures are stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 122 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 124. Stick, Plate Overhead

The theory and practice in the preparation and welding of overhead position steel plate joints using the E-6010 and E-7018 electrodes. Safety, joint preparation, weave techniques, stringer techniques, and A.W.S. welding procedures are stressed. Lecture, one hour per week; laboratory two hours per week.

PREREQUISITE: WLD 122 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 125. TIG (Heliarc) Flat Plate

The theory and practice in the preparation and welding of flat position steel plate using the TIG method and appropriate filler material. Equipment set-up, current adjustment, joint preparation, safety and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 124 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 126. TIG (Heliarc) Horizontal Plate

The theory and practice in the preparation and welding of horizontal position steel plate using the TIG method and appropriate filler material. Safety, joint preparation, set-up, and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 125 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 127. TIG (Heliarc) Vertical Plate

The theory and practice in the preparation and welding of vertical position steel plate using the TIG method and appropriate filler material. Safety, joint preparation, equipment set-up, and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 126 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 128. TIG (Heliarc) Overhead Plate

The theory and practice in the preparation and welding of overhead position steel plate using the TIG method and appropriate filler material. Safety, joint preparation, equipment set-up, and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 127 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 129. MIG (Wire) Flat Plate

The theory and practice in the preparation and welding of flat position steel plate using the solid core wire. Safety equipment set-up, travel direction, gun angle, weave and stringer techniques will be stressed. A.W.S. testing procedure will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 124 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 220. MIG (Wire) Horizontal Plate

The theory and practice in the preparation and welding of horizontal position steel plate using the solid core wire. Safety, equipment set-up, travel direction, gun angle, and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 129 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 221. MIG (Wire) Vertical Plate

The theory and practice in the preparation and welding of vertical position steel plate using the solid core wire. Safety, equipment set-up, and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 220 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 222. MIG (Wire) Overhead Plate

The theory and practice in the preparation and welding of overhead position steel plate using the solid core wire. Safety, equipment set-up, gun angle, travel direction and A.W.S. procedures will be stressed. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 221 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 223. Stick, Pipe

Common pipe joints are prepared and welded in accordance with A.W.S. and A.S.M.E. standards used in industry and construction. Position welds are accomplished in the 2G and 5G positions with the E-6010 and 7018 electrodes. 6G position may also be accomplished. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 124 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 224. TIG (Heliarc) Pipe

Common pipe joints are prepared and welded in accordance with A.W.S. and A.S.M.E. standards used in industry and construction. Position welds are accomplished on steel pipe in the 2G and 5G positions using mild steel filler material. 6G position may also be introduced. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 223 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 225. MIG (Wire) Pipe

Common pipe joints are prepared and welded in accordance with A.W.S. and A.S.M.E. standards used in industry and construction. Position welds are accomplished on steel pipe in the 2G and 5G positions using mild steel filler material. 6G position may also be introduced. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 223 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 226. Gas Weld and Brazing, Flat and Horizontal

This course includes the theory, safety, and operation of oxy-acetylene welding and cutting equipment. The student will learn to produce quality welds and to braze joints in the flat and horizontal positions on steel plate.
Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 227. Gas Weld and Brazing, Vertical and Overhead

This course includes the theory and practice in the production of vertical and overhead welds. The student will learn proper joint preparation, torch methods and heat control to produce quality welds and braze joints on steel plate. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WLD 226 or concurrent enrollment or consent of instructor.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WLD 228. Welding for Apprentices

This course is made up of four major areas of welding each requiring 30 clock hours of instruction. The areas included are: arc welding (stick, flat and horizontal position), oxycetylene, and semi-automatic welding. Lecture, .75 hours per week; laboratory, 1.5 hours per week.

PREREQUISITE: Enrollment in an apprenticeship program.
CREDIT: Six semester hours.
OFFERED: F

WELDING DESIGN THEORY

WDT 120. Welding Theory I

This course is designed to inform and prepare the student in the safe operation, set-up and handling of the materials and equipment used in oxyacetylene cutting and welding, Shield Metallic Arc, MIG, TIG, and special welding processes. Lecture, one hour per week.

PREREQUISITE: None.
CREDIT: One semester hour.
OFFERED: F

WDT 121. Welding Theory II

This course is designed to inform and prepare the student in interpretation of the welding code procedure, welding power source principles, welding cost estimating, resistance welding processes, and basic trouble shooting. Lecture, one hour per week.

PREREQUISITE: WDT 120.
CREDIT: One semester hour.
OFFERED: SP

WELDING QUALIFICATION TESTS

WQT 120. Stick Welding Test Flat Plate

The student will arc weld steel plate in the flat position with assigned electrodes. The student will then cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 120 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 121. Stick Welding Test Horizontal Plate

The student will arc weld steel plate in the horizontal position with assigned electrodes. The student will then cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 121 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 122. Stick Welding Test Vertical-Up Plate

The student will arc weld steel plate in the vertical up position with E-6010 and E-7018 electrodes; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 122 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 123. Stick Welding Test Vertical-Down Plate

The student will arc weld steel plate in the vertical down position with E-6010 and E-7018 electrodes; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 123 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 124. Stick Welding Test Overhead Plate

The student will arc weld steel plate in the overhead position with E-6010 and E-7018 electrodes; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 124 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 125. TIG Welding Test Flat Plate

The student will TIG (Heliarc) weld steel plate in the flat position; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 125 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 126. TIG Welding Test Horizontal Plate

The student will TIG (Heliarc) weld steel plate in the horizontal position; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 126 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 127. TIG Welding Test Vertical Plate

The student will TIG (Heliarc) weld steel plate in the vertical position, cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 127 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 128. TIG Welding Test Overhead Plate

The student will TIG (Heliarc) weld steel plate in the overhead position; cut, grind, and prepare straps for a root and face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 128 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 129. MIG Welding Test Flat Plate

The student will MIG (Wire) weld steel plate in the flat position; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 129 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 220. MIG Welding Test Horizontal Plate

The student will MIG (Wire) weld steel plate in the horizontal position; cut, grind, and prepare straps for a root and face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 220 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 221. MIG Welding Test Vertical Plate

The student will MIG (Wire) weld steel plate in the vertical position; cut, grind and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 221 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 222. MIG Welding Test Overhead Plate

The student will MIG (Wire) weld steel plate in the overhead position; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 222 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 223. Stick Pipe Test

The student will arc weld steel pipe with E-6010 and E-7018 electrodes; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1 and American Society of Mechanical Engineer Code. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 223 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 224. TIG Pipe Test

The student will TIG (Heliarc) weld steel pipe; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1 and American Society Mechanical Engineer Code. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 224 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 225. MIG Pipe Test

The student will MIG (Wire) weld steel pipe; cut, grind, and prepare straps for a root and a face bend test as specified in the American Welding Society Structural Welding Code, D1.1 and American Society Mechanical Engineer Code. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 225 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WQT 226. Gas Weld Test Flat and Horizontal Plate

The student will oxyacetlyene gas weld steel plate in the flat and in the horizontal positions; cut, grind, and prepare straps for a root and face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 226 or consent of instructor.
CREDIT: 3/4 semester hours.
OFFERED: F, SP, SU

WQT 227. Gas Weld Test Overhead and Vertical Plate

The student will oxyacetylene gas weld steel plate in the vertical and overhead positions; cut, grind, and prepare straps for a root and face bend test as specified in the American Welding Society Structural Welding Code, D1.1. Laboratory, 1.5 hours per week.

PREREQUISITE: Credit or concurrent enrollment in WLD 227 or consent of instructor.
CREDIT: 3/4 semester hour.
OFFERED: F, SP, SU

WOODWORKING

WDW 110. Beginning Woodworking

This course is composed of basic instruction relating to the use of hand and power tools used in the wood industry. Emphasis is placed on planning, designing and constructing selected projects using developmental skill techniques. Lecture, three hours per week.

PREREQUISITE: None.
CREDIT: Three semester hours.
OFFERED: F

WDW 111. Advanced Woodworking

A continuation of WDW 110 including instruction on portable power tools as well as stationary woodworking machines, namely: planer, jointer, table saw, band saw, shaper, router, scroll saw, etc. Emphasis will be on planning, designing and constructing selected projects using advanced millwork skills. Lecture, three hours per week.

PREREQUISITE: WDW 110.
CREDIT: Three semester hours.
OFFERED: SP

WORD PROCESSING

WPR 120. Fundamentals of Office Systems

The aim of this course is to acquaint students with automated machines, supplies, procedures, and human relations in a business office as they relate to Word Processing. Advancements in the field of business and management and work simplification typical of both small and large business offices will be examined.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F, SP

WPR 121. Word Processing I

An introductory course in machine transcription. The student will learn to type business correspondence from transcription equipment. Proofreading tips will also be covered in this course. One hour of lecture, two hours of lab per week.

PREREQUISITE: BUE 107.
CREDIT: Two semester hour.
OFFERED: F, SP

WPR 122. Word Processing Applications

Basic instruction on text editing and related equipment used in Word Processing centers. Also, introduction of Word Processing terminology. Completion of various word processing exercises on the IBM Displaywriter and transcription equipment. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: BUE 107 or equivalent.
CREDIT: Two semester hours.
OFFERED: F, SP, SU

WPR 123. Advanced Text Editing

An advanced course using CRT equipment. The student will study advanced procedures used in word processing and will develop production level techniques on the CRT. The student will also learn to combine the skills of machine transcription and text editors. Lecture, one hour per week; laboratory, two hours per week.

PREREQUISITE: WPR 122.
CREDIT: Two semester hours.
OFFERED: F, SP

WPR 124. Records Processing and File Design

The student will learn to create, use, and maintain files on a word processor. The student will also learn to design letters and reports using information from the files. The IBM Displaywriter and Reportpack will be used for this class. The student should be thoroughly familiar with text editing before entering this class.

PREREQUISITE: WPR 123.
CREDIT: Two semester hours.
OFFERED: F, SP

WPR 125. Information Processing and Systems Administration

Advanced application of word processing including such areas as system administration concepts, electronic mail, creating and maintaining libraries on the Wang, and communicationS features. The student will also create and use glossary on the Wang. Lecture, one hour per week; lab, two hours per week.

PREREQUISITE: WPR 123
CREDIT: Two semester hours.
OFFERED: F, SP

ZOOLOGY

ZOO 104. General Zoology

A comparative study of animal life from the protozoans through the chordates. Anatomy, physiology, and evolution will be stressed. Lecture, two hours per week; seminar, one hour per week; laboratory, three hours per week.

PREREQUISITE: BIO 101, or BIO 103, or BOT 109, or ZOO 107.
CREDIT: Four semester hours.
OFFERED: SP

ZOO 107. Anatomy & Physiology I

This course encompasses the structural composition of man and the functional operation of these structures. The complexity of these components are first studied separately as organ systems, and then throughout the course integrated into a structural and functional understanding of the whole organism. Laboratory exercises emphasize the anatomical aspects of man using the adult cat as a dissection specimen, along with other preserved material, microscope slides, charts, and models. Lecture focuses primarily upon physiological processes, while seminar periods are used to reinforce both lecture and lab material. Cytology, histology, and five major systems--skeletal, muscular, nervous, integumentary, and endocrine are studied. Lecture, two hours per week; laboratory, three hours per week; seminar, one hour per week.

PREREQUISITE: None
CREDIT: Four semester hours.
OFFERED: F, SU

ZOO 108. Anatomy & Physiology II

A continuation of ZOO 107, this course completes the study of the structural and functional aspects of the human body. Five major systems--reproductive, circulatory, respiratory, digestive, and excretory are studied, with special emphasis given to the topics of metabolism, fluid and electrolyte balance, and acid-base balance. Lecture, two hours per week; laboratory, three hours per week; seminar, one hour per week.

PREREQUISITE: ZOO 107 or consent of instructor.
CREDIT: Four semester hours.
OFFERED: SP

ZOO 120. Human Body Structure and Function

This course will emphasize the anatomy (structure) and physiology (function) of the human body. Class sessions will include lectures, demonstrations, and discussions which concentrate on how the body is constructed and how it functions.

PREREQUISITE: None.
CREDIT: Two semester hours.
OFFERED: F, SU

ILLINOIS VALLEY COMMUNITY COLLEGE

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President

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DISCLAIMER

Information contained in the 1987-1989 edition of the Catalog was, to the best knowledge of the Illinois Valley Community College staff, considered correct and complete when submitted to the publisher in April, 1987. However, this catalog should not be considered a contract between Illinois Valley Community College and any student. Illinois Valley Community College reserves the right to make changes in tuition, fees, admissions, regulations, and curriculum without notice or obligation.

IVCC is an affirmative action/equal opportunity institution.

IVCC does not discriminate on the basis of handicap in the recuitment or admission of students and it complies fully with Section 504 of the Rehabilitation Act of 1973.

ACKNOWLEDGMENTS

"WHAT CAN I DO WITH A MAJOR IN . . . . . .?"

Much of the career information included in the pre-professional (transfer) section of the catalog is taken from "What Can I Do With A Major In....?" by Lawrence R. Malnig and Sandra L. Morrow, 1975, published by Saint Peter's College Press, Jersey City, New Jersey 07306.

OCCUPATIONAL OUTLOOK HANDBOOK

The majority of the Career Information in the two year Associate in Applied Science and Certificate program areas is taken from the "Occupational Outlook Handbook", 1986-87 Edition, published by the U.S. Department of Labor, Bureau of Labor Statistics. Much of the career outlook material reflects a national outlook as reported in the O.O.H.

THE OCCUPATIONAL FINDER

Special thanks to John L. Holland, Ph.D., for use of his booklet entitled "The Occupational Finder" for coding the degree and certificate programs with a student interest code. The student interest codes are directly related for use with the following career interest inventories. The Self Directed Search, The Strong-Campbell Vocational Inventory Blank, and Holland's Vocational Preference Inventory.

Illinois Valley Community College

2578 E. 350th Road, Oglesby, IL 61348-1099 Telephone: (815) 224-2720

APPLICATION FOR ADMISSION

Welcome!

We are very pleased that you are interested in admission to I.V.C.C. Your admission application with general information is provided to help you in the admission process. For additional information, please consult the current college catalog or contact us at the phone numbers listed at the bottom of this page.

Your Admission

You may be admitted as either a **Degree or Certificate Seeking Student** or as a **Student-At-Large.** A Degree or Certificate Seeking Student is one who is working towards graduation in one of the college's degree or certificate programs. A Degree or Certificate Seeking Student may be enrolled either full-time or part-time.

A Student-At-Large is one who is taking courses to fit his or her individual needs and interests. A Student-At-Large is not a candidate for a degree or certificate, but may later qualify by fulfilling the admission requirements for a Degree or Certificate Seeking Student. Credits earned as a Student-At-Large may be applied toward a degree or certificate.

How To Apply

To apply for admission as a Degree or Certificate Seeking Student you must submit:

- Admission application.
- Official transcript of high school record indicating graduation (if appropriate), or official transcripts of high school equivalency scores (G.E.D.).
- Official transcipts from any and all colleges attended.

To apply for admission as a Student-At-Large you must submit:

- Admission application.

No other documentation is necessary for admission as a Student-At-Large.

Where To Apply

Bring your application to the campus, or mail your application to the Admissions Office at the address listed below. If you are applying as a Degree or Certificate Seeking Student, be sure to have official transcripts sent directly to us or include them with your application.

Admissions Office
Illinois Valley Community College
2578 E. 350th Road
Oglesby, IL 61348-1099

IF YOU HAVE ANY QUESTIONS CALL US AT

(815) 224-2720

Admissions — **Ext. 439** Counseling — **Ext. 360** Financial Aid — **Ext. 440**

APPLICATION FOR ADMISSION
ILLINOIS VALLEY COMMUNITY COLLEGE

SOCIAL SECURITY NUMBER

TERM APPLYING FOR: ______ FALL, 19 ______ ______ SPRING, 19 ______ ______ SUMMER, 19 ______

LEGAL NAME: LAST FIRST MIDDLE (FULL) FORMER SURNAME(S)

ADDRESS: NUMBER/STREET CITY COUNTY STATE ZIP CODE

HOME PHONE NO. ( ) WORK PHONE NO. ( ) CITY AND STATE OF BIRTH BIRTHDATE: Mo Day Yr SEX: ______ Male ______ Female

RACE: ______ WHITE ______ BLACK ______ HISPANIC ______ ASIAN OR PACIFIC ISLANDER ______ AMERICAN INDIAN ______ NON-RESIDENT ALIEN ______ REFUSE TO INDICATE

U.S. CITIZEN ______ YES ______ NO

HIGH SCHOOL LAST ATTENDED:

Name ______________________

City ______________________

State ______________ Zip Code ______________

HIGH SCHOOL GRADUATION STATUS:

______ I Graduated Month ______ Year ______

______ I finished G.E.D. Month ______ Year ______

______ I am still in high school but will graduate Month ______ Year ______

______ I withdrew from high school Month ______ Year ______

HAVE YOU EVER TAKEN A CREDIT COURSE FROM I.V.C.C. OR L.P.O. JUNIOR COLLEGE? ______ YES ______ NO

IF "YES" INDICATE LAST SEMESTER OF ATTENDANCE SEMESTER ______________ 19 ______

NAME UNDER WHICH LAST ATTENDED (IF DIFFERENT FROM ABOVE): ______________________

LIST ALL COLLEGES ATTENDED OTHER THAN I.V.C.C.

NAME	*CITY*	*STATE*	*FROM*	*TO*
			19	19
			19	19
			19	19

CURRICULUM (SEE BACK PAGE): Name ______________________ Curriculum Code No. ______________

I AM APPLYING AS: ______ A Degree or Certificate Seeking Student ______ A Student-At-Large (Individual Courses of Interest)

MY PRIMARY OBJECTIVE AT I.V.C.C. IS (CHECK ONE):

______ Prepare for future job

______ Improve skills needed in present job

______ Explore courses to decide on career

______ Prepare to transfer to another college

______ Remedy or review basic educational or vocational skills

______ Personal interest or self development

______ Prepare for high school diploma equivalency

______ Other or unknown

NAME OF PARENT, GUARDIAN OR SPOUSE: Last ______________ First ______________

Number/Street ______________ City ______________ State ______________ Zip Code ______________

Area Code/Phone No. ______________

I CERTIFY THAT I AM A LEGAL RESIDENT OF DISTRICT 513: ______ Yes ______ No

I UNDERSTAND THAT IF I WITHHOLD OR GIVE FALSE INFORMATION ON THIS APPLICATION IT MAY MAKE ME INELIGIBLE FOR ADMISSION TO THE COLLEGE OR SUBJECT ME TO DISMISSAL. I FURTHER CERTIFY THAT THE ABOVE STATEMENTS ARE COMPLETE AND CORRECT.

Signature ______________________ Date ______________

Illinois Valley Community College
Health History Form

Please Print

Student's Name: ____________________

Social Security Number: ____________________

Name of person to be notified in emergency: ____________________

Address: ____________________

Telephone: (   ) ____________ Relationship to Student: ____________

Student's Native Language (If other than English) ____________________

Personal Health History: Please check **any** and **all** of the conditions which apply to you.

☐ I do not wish to respond

☐ Speech Impaired

☐ Deaf/Hearing Impaired

☐ Visually Handicapped

☐ Orthopedically Impaired
(Crutches, Wheelchair, Leg Brace, etc.)

☐ Limited English Proficiency

☐ Learning Disability

☐ Mental Health Problems

☐ Other Health Impairment (Please Identify)

____

☐ NONE APPLY

If you are handicapped, would you like to support services for auxiliary aids while attending I.V.C.C.? ☐ Yes ☐ No

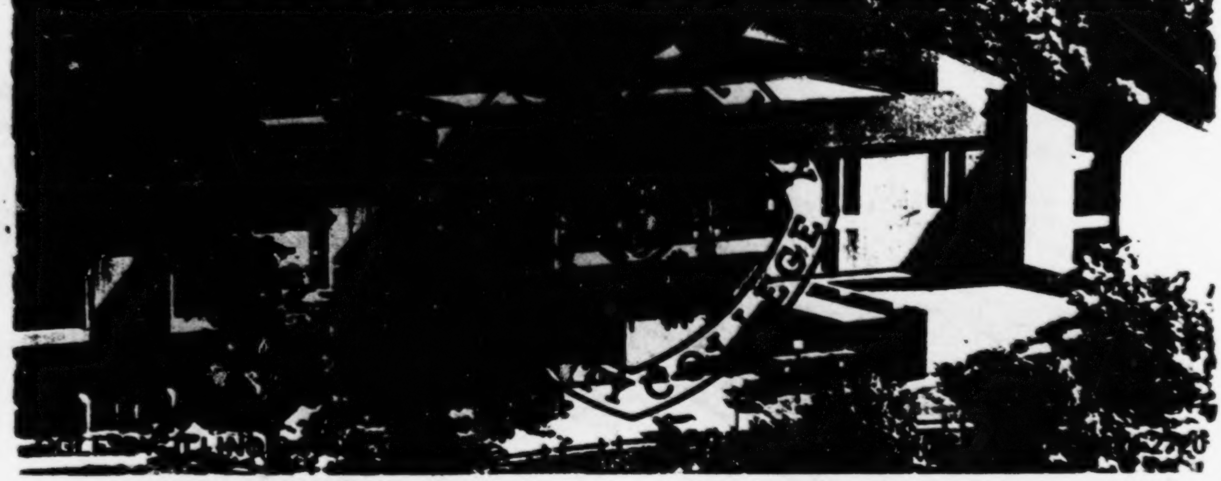
(If yes, please describe) ____________________

____

The information requested is voluntary, and is collected to assist the college in providing support services for students with disabilities. The information is confidential, and will not be used for the purpose of excluding or disqualifying anyone from any program or activity.

I.V.C.C. DOES NOT DISCRIMINATE ON THE BASIS OF HANDICAP, RACE, SEX, AGE, CREED OR ETHNIC ORIGIN IN THE RECRUITMENT OR ADMISSION OF STUDENTS AND IT COMPLIES FULLY WITH SECTION 504 OF THE REHABILITATION ACT OF 1973.

ILLINOIS VALLEY COMMUNITY COLLEGE
APPLICATION FOR ADMISSIO



*TRANSFER DEGREE PROGRAMS
(Associate in Arts and Associate in Science)

Agriculture - 1015
Art - 1015
Biology - 2016
Business - 1015
Chemistry - 2016
Communications/Journalism - 1015
Computer Science - 2016
Criminal Justice - 2016
Dentistry - 2016
Education - 1015
Engineering - 2016
English - 1015
Foreign Languages - 1015
Forestry - 2016
Geography - 2016
Geology - 2016
History - 1015
Home Economics - 1015
Law - 1015
Mathematics - 2016
Medical Technology - 2016
Medicine - 2016
Music - 1015
Nursing - 2016
Pharmacy - 2016
Physical Education - 1015
Physical Therapy - 2016
Political Science - 1015
Psychology - 1015
Recreation - 1015
Sociology - 1015
Theatre - 1015
Veterinary - 2016

CAREER/VOCATIONAL DEGREE PROGRAMS
(Associate in Applied Science)

Accounting - 3058
Agribusiness Management - 3053
Agrimechanics/Diesel Power - 3165
Automotive Mechanics - 3051
Child Care/Preschool Education - 3057
Computer Information Systems - 3042
Criminal Justice - 3044
Electronics Technology - 3043
Fire Science Technology - 3120
Marketing - 3050
Mechanical Engineering
  Technology - 3049
Mechanical Technology/Robotics
  Applications - 3033
Mid-Management - 3072
Nursing (R.N.) - 3047
Secretarial Science - 3048

CAREER/VOCATIONAL CERTIFICATE PROGRAMS

Accounting, Basic - 0157
Accounting, Intermediate - 0158
Accounting, Advanced - 0159
Agribusiness Production
  and Management - 0122
Agribusiness Supply and Service
  Animal Science Emphasis - 0123
  Agronomy Emphasis - 0124
Agrimechanics - 0121
Automotive Mechanics
  Auto Brake Susp. Align. - 0093
  Auto Tune-up - 0092
  Advanced Tune-up - 0095
Clerical - 0061
Computer Applications
  Computer Concepts for
  Small Business - 0155
Computer Numerical Control
  CNC Operator - 0172
  CNC Programmer - 0173
Computer Operation - 0160
Computer Programming - 0161
Criminal Justice - 0065
Dental Assisting - 0069
Diesel Fuel System - 0127
Diesel Truck Mechanics - 0126
Fire Science - 0167
Heavy Equipment Mechanics - 0125
Industrial Electricians - 0062
Micro-Computer - 0171
Nursing Assistant - 0166
Retailing/Merchandising - 0175
Word Processing - 0154
Word Processing
  Systems Management - 0157

**Other Majors Are Available - Consult One of Our Counselors to Formulate the Appropriate Coursework.*

I.V.C.C. is an Affirmative action/equal opportunity instituion.

I.V.C.C. does not discriminate on the basis of handicap in the recruitment or admission of students and it complies fully with section 504 of the Rehabilitation Act of 1973.

ILLINOIS VALLEY
COMMUNITY COLLEGE

CAREER PLANNING INFORMATION SECTION

This section of the catalog has been organized to assist those students and adults who are undecided as to a career choice or career change. The college programs on these pages are organized to correspond with the scores one might obtain from the Strong-Campbell Vocational Interest Blank of the Holland Self-Directed Search (SDS). Copies of these interest inventories may be obtained from the college counselors. An appointment to have an individual's scores interpreted as they relate to career choice and I.V.C.C.'s programs may be scheduled by calling the counseling department at (815) 224-2720.

	I.V.C.C. CERTIFICATE PROGRAMS			I.V.C.C (A.A.S.) TWO-YEAR APPLIED DEGREE PROGRAMS			I.V.C.C. (A.A. & A.S.) TWO-YEAR TRANSFER DEGREE PROGRAMS		
	HOC*		Catalog Page			Catalog Page			Catalog Page
R	RIE	Agribusiness Production and Management	104	RIE	Agrimechanics	106	RSE	Criminal Justice (Pre)	54
	RIE	Agribusiness Supply and Service		RIE	Automotive Mechanics	110	RIS	Forestry (Pre)	64
		1. Animal Science	105	RSE	Criminal Justice	117			
		2. Agronomy	105	RIE	Fire Science	121			
	RIE	Agrimechanics		RIE	Mechanical Engineering Technology	124			
		1. Diesel Fuel Sys.	108						
		2. Diesel Truck Mech.	109						
		3. Heavy Equip. Mech.	109						
	RIE	Automechanics	110						
	RSE	Criminal Justice	117						
	RIE	Fire Science	121						
	RIS	Industrial Electricians	122						
I	IR	Computer Numerical Control	115	IRE	Electronic Technology	120	ISR	Biology (Pre)	46
				ISA	Medical Laboratory Technician	137	IAR	Chemistry (Pre)	50
				IRS	Medical Radiography	140	IRC	Computer Programmer (Pre)	53
				IRC	Mechanical Technology Robotic Applications	125	IRE	Dentistry (Pre)	56
							IRE	Engineering (Pre)	60
							IRS	Geography (Pre)	66
							IRA	Geology (Pre)	68
							IRA	Mathematics (Pre)	74
							ISA	Medical Technology(Pre)	75
							ISA	Medicine (Pre)	77
							IES	Pharmacy (Pre)	83
							ISA	Psychology (Pre)	91
							IRS	Veterinary (Pre)	97
S	SAI	Dental Assistant	118	S	Child Care/Preschool Educ.	111	SAI	Elementary Education (Pre)	58
	SAI	Nursing Assistant	131	SIA	Nursing (R.N.)	128	SAE	Foreign Languages Teacher (Pre)	62
							SEI	History (Pre)	70
							SAE	Home Economics (Pre)	72
							SIA	Nursing (Pre)	81
							SRE	Physical Education (Pre)	85
							SIR	Physical Therapy (Pre)	87
							SIA	Political Science (Pre)	89
							SEA	Recreation (Pre)	92
							SIA	Sociology (Pre)	94
							SAI	Special Education (Pre)	58
							SAI	Speech Therapy (Pre)	58
C	CER	Accounting	102	CES	Accounting	101	CER	Computer Science (Pre)	53
	CSA	Clerical	113	CER	Computer Info Systems	114			
	CER	Computer Operation	116	CSA	Secretarial Science	133			
	CER	Micro-Computer	116						
	CSA	Word Processing	134						
	CSA	Word Processing Systems Management	135						
E	ES	Retailing/Mechandising	132	ERI	Agribusiness Management	103	ESA	Agriculture Transfer (Pre)	43
				ES	Marketing	123	ESC	Business (Pre)	48
				ESC	Mid-Management	126	EAS	Law (Pre)	73
A							AIR	Art (Pre)	44
							ASE	English (Pre)	61
							ASE	Foreign Languages Interpretor (Pre)	62
							ASI	Music (Pre)	79
							AIS	Theatre (Pre)	96

*R = Theme (Realistic)
E = Theme (Enterprising)
C = Theme (Conventional)
S = Theme (Social)
I = Theme (Investigative)
A = Theme (Artistic)

IVCC — QUALITY EDUCATION FOR STUDENTS

BRADLEY ACUNCIUS
Sergeant, Illinois State Police
(See Page 56)

SUSAN STACHOWICZ RUPPERT
Nurse Practitioner Teacher,
(See Page 130)

RICHARD L. BERNARDI, Dean
Rock Valley College
(See Page 57)

STEVEN FUNFSINN
Automobile Technician
(See Page 134)

DR. ROXANNE SULLIVAN
Psychology Professor
(See Page 58)

THOMAS CURRAY, M.D.
Physician and Surgeon
(See Page 78)

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